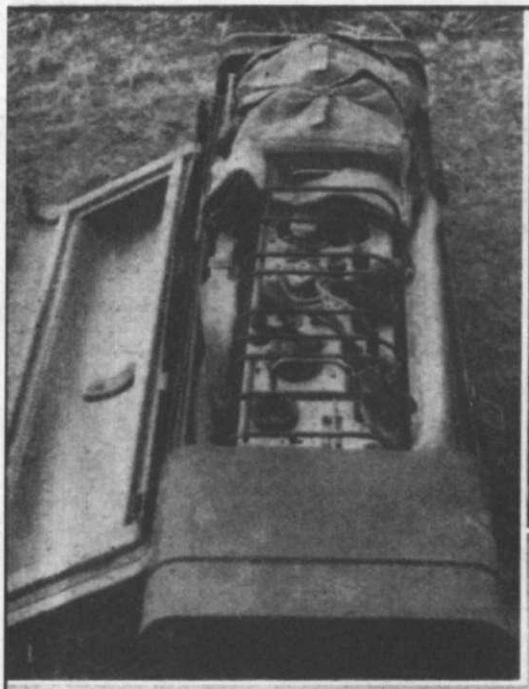
Vol 8 **The War Illustrated** No 197

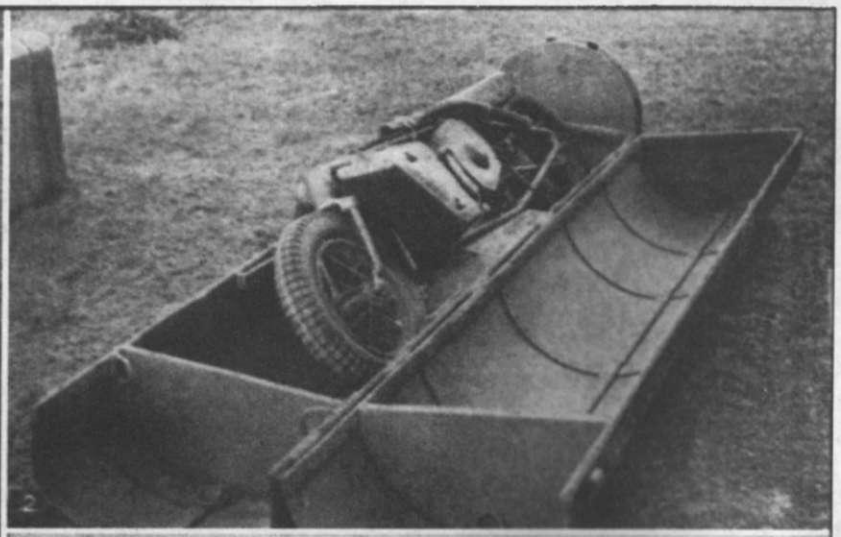
SIXPENCE — *Edited by Sir John Hammerton* — JANUARY 5, 1945

MEN OF ARNHEM—400 "Red Devils" of deathless fame—marched proudly away from Buckingham Palace after a special investiture by H.M. the King on December 6, 1944. The numbers were so unprecedented that, for the first time in history, the ceremony had to be held in the spacious entrance hall of the King's London home. Sixty-one of the noble band (see pages 366-70) received decorations. They included a V.C. (Major R. H. Cain), two C.B.s, seven D.S.O.s, 19 M.C.s, seven D.C.M.s. and 25 M.M.s. *Photo, Daily Mirror*

NO. 198 WILL BE PUBLISHED FRIDAY **JANUARY 19**

Our Roving Camera Visits the Airborne Troops





"RED DEVILS" of Arnhem (3), on their way to and from Buckingham Palace on December 6, 1944 (see page 513), brought to spectators' minds recollection of exploits of the famous Allied Airborne force. The Airborne army—glider-borne, as distinct from parachute-troops—was originally formed in Nov. 1941. The consolidation of Allied airborne forces in one command, approximating to an army in size and importance, was announced on August 11, 1944, when it came under Lieut.-Gen. Lewis H. Brereton, formerly commanding the U.S. 9th Air Force (see page 287), with Lieut.-Gen. F. A. M. Browning C.B., D.S.O. (see page 543), Deputy Commander. Airborne troops must be under 32 years of age, not more than 13 stone in weight or over 6 ft. 2 ins. in height. Equipment includes a No. 22 wireless set in container (1), and a folding motor-cycle (2).

British parachute-trooper in full kit (4) wearing a camouflaged jumping jacket and carrying mortar bombs and mortar leg case; back view is seen in (5).

Photos, British Official; Keystone

THE BATTLE FRONTS

by Maj.-Gen. Sir Charles Gwynn, K.C.B., D.S.O.

JUST when it seemed that their offensive in Hungary and Slovakia (see map in page 483) had lost its impetus, the Russians produced another of those extensions of their front which have so often been a feature of their strategy. As usual, the new blow had been well timed and well designed to set the previous offensive again in motion. When German reports admitted that the Russians had established a bridge-head a short distance above the junction of the Drava with the Danube, it was not clear whether this was only a tentative effort by the left wing of Malinovsky's army, for he had already made several attempts to establish a foothold across the Danube south of Budapest, and had suspended his direct attacks towards the city.

Confident claims by the Germans that they had sealed off the bridge-head suggested that only a part of Malinovsky's army was engaged, but when it was announced that Tolbukhin had broken out of the bridge-head and widened its frontage it was evident that the Germans were confronted with a new and serious danger. I had originally expected that Tolbukhin's army would be used in support of Malinovsky's great drive into Hungary, but when it was reported that he had been diverted to bring an end to Bulgarian hesitations and had later been reported to be acting in support of Marshal Tito's forces against German pockets in the Morava valley, it seemed he might not be able to co-operate directly with Malinovksy.

BOLD and Rapid Exploitation of Success with Red Armour

There was obviously a possibility that he might be employed against the Germans retreating from Greece and Yugoslavia and those still fighting in the Sava valley west of Belgrade. That would have implied the dispersion of his army on a number of secondary missions and not, as is now evidently the case, its mass employment in a major operation. I have followed Tolbukhin's career with special interest, for he has a number of remarkable achievements to his credit, both in breaking through strong German defences and in particularly bold and rapid exploitation of success with his armour. He came into prominence when he broke the German Mius position in the Donbas, captured Taganrog (August 1943) and swept along the shores of the Sea of Azov.

THEN came his victory on the Melitopol line, and his steady pursuit which drove the Germans across the lower Dnieper and isolated the Crimea. During the last winter campaign little more was heard of him until in the spring, when his liquidation of the Crimea was rapidly carried through with astonishing skill and determination; his use of armour in the initial drive which threw the Germans back to Sebastopol being particularly remarkable. After that, nothing was heard of him for some time, and when his 4th Ukrainian army appeared in the Northern Carpathians it was under Petrov's command. Not till the Rumnian offensive started was it learnt that he had taken over the 3rd Ukrainian army from Malinovsky in the general shift of commanders that occurred when Zhukov's temporary command of the 1st Ukrainian army (after Vatutin's death) was terminated. In all these achievements Tolbukhin had largely an independent role and in all he showed exceptional drive and vigour. It is not surprising that his latest achievement has shown the same characteristics.

Again he has forced a strongly held German position and has exploited success with amazing speed. This time, however, his operations are evidently closely co-ordinated with those of Malinovsky, and it would be interesting to know if Zhukov has returned to his former post of chief strategical co-ordinator under Marshal Stalin. Tolbukhin's drive we know has been two pronged, northwards and westwards. The northward thrust in addition to securing a passage at the north end of Lake Balaton was evidently designed to clear the west bank of the Danube and thus enable Malinovsky's left wing to force a crossing and encircle Budapest from the south.

IT is not yet certain if the main weight of Tolbukhin's army will be employed north of Lake Balaton after Malinovsky is well established across the river. It is, I think, more probable that his main thrust will develop westwards round the southern end of the lake. For the Austrian frontier is only 40 miles ahead and there are no intervening natural obstacles. In that case Tolbukhin would have the somewhat independent role of dealing with the German forces in Southern Austria and Slovenia, which presumably hope to cover the retreat of the German army from Yugoslavia and from which they might receive reinforcements. Probably, however, part of his army would continue to co-operate directly with Malinovsky and provide a link with the southern force.

Meantime, Malinovsky took every advantage of the assistance Tolbukhin had given him. He crossed the Danube south of Budapest and is attacking the city from the south-west as well as renewing his assault from the east. Furthermore, in a drive north-west he broke through the German front between Miskolcz and Budapest and has reached the frontier of Slovakia, 100 miles to the west of the strong German group which was fighting stubbornly north of Miskolcz. This group has, therefore, lost all direct contact with the Danube valley and will be forced to retire through Slovakia. In his drive north-west Malinovsky also reached the elbow of the Danube where it turns westwards, and by capturing Vacs opened the door to the corridor leading to Bratislava and Vienna between the mountains of Slovakia and the Danube. Having secured these positions, Malinovsky turned part of his force southwards from Vacs to attack Budapest from the north and clear the east bank of the Danube between the two cities.

It is clear that the capture of Budapest—and it is closely threatened on three sides as I write—will enable Malinovsky's army to drive westwards towards Vienna on both sides of the Danube, with the co-operation of Tolbukhin on one flank and the protection of Petrov's army on the other against any counterstroke that might be attempted by the Germans from Slovakia. It is, no doubt, in order to delay such a development and to gain time for the organization of the defence of Austria that the Germans are fighting so obstinately to hold Budapest, even at the risk of withdrawal becoming desperately difficult. They may have the additional motive of realizing that once Budapest falls the Hungarians will have few inducements to continue the struggle, and be less sensitive to the pressure that can be exercised on them while the city remains as a hostage in German hands.

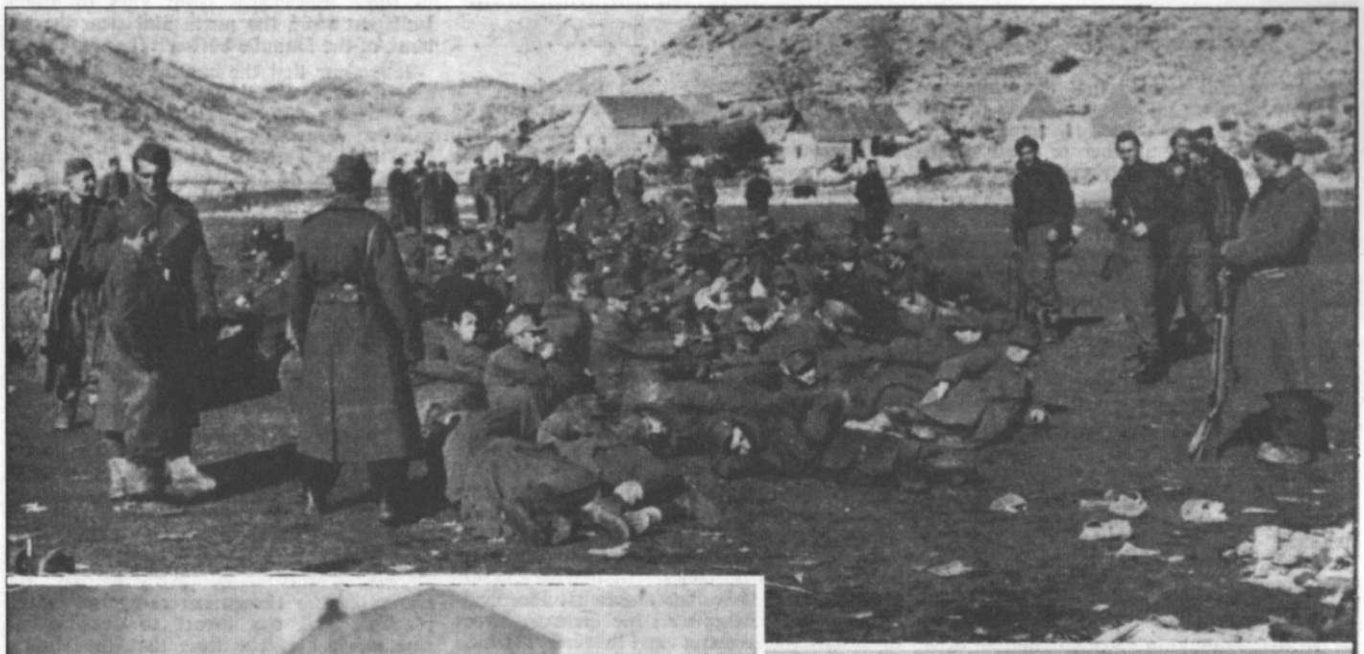
ACCURATE Timing of Thrusts a Source of Soviet Triumphs

There seems every prospect that the climax of the Hungarian campaign will be reached, and the threat to Austria will mature, just at the time that the Russian winter offensive in Poland and East Prussia, evidently brewing, is due to start. Whether that has resulted from long-term calculations or not may be doubtful, but in the event it will not be surprising if we see another example of that accurate timing which has so often been a feature of Russian strategy.

For the time being, the threat of the coming winter offensive obviously immensely increases the difficulty the Germans have of finding reserves to intervene in the constantly deteriorating situation in Hungary. They cannot afford to withdraw troops from East Prussia or Poland, for their only hope of escaping a decisive disaster is to prevent the main Russian offensive, when it comes, acquiring momentum. They are reported to have transferred two divisions from Italy to Hungary, but obviously having clung so long to the Italian front they cannot afford to weaken it without risking a disastrous and almost certainly a belated retreat. The timing of German strategical moves, possibly from Hitler's influence, has all along been as faulty as the Russian has been accurate.

EXPERT BRIDGE BUILDERS, these South African engineers with the 8th Army in Italy upheld their great reputation when they restored enemy-shattered communications across the river Unito. This was the first obstacle encountered outside the historic city of Ravenna, which fell to Canadian troops of Princess Louise's Dragoon Guards on December 4, 1944, after a brilliant encircling movement. *Photo, British Official*

German Escape Routes Hammered in Yugoslavia



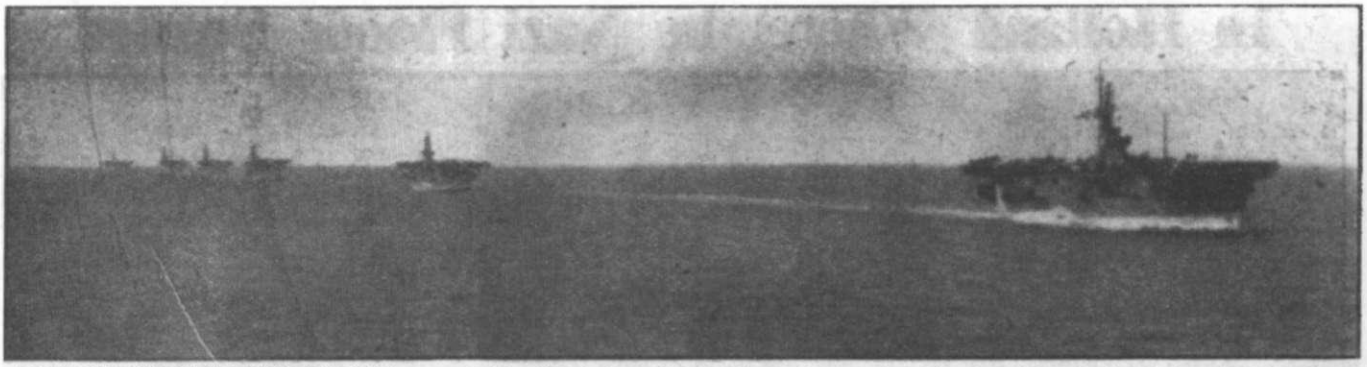
BRITISH LAND FORCES IN THE ADRIATIC co-operated with Marshal Tito's army in the battle of the German escape routes in Yugoslavia (see map), it was disclosed on November 10, 1944. Yugoslav troops guard prisoners at Ledenice (1); while at Risan (taken on December 3), on the Gulf of Kotor, two R.A.F. planes attacked this German stronghold (2), from a height of only 100 feet, firing rockets and pumping machine-gun bullets into it. Tito's snipers harass the enemy retreating along the Niksic Road (3). A mountain howitzer (75 mm.), manned by the Royal Artillery, in action at Risan (4).

Photos, British Official

In Holland Where the Nazi Floods Swirled

BLOWING UP THE LOWER RHINE DAM south-east of Arnhem on Dec. 3, 1944, the enemy succeeded in hindering our progress. Taking advantage of the lull, British troops wrote home for Christmas from their trenches and dug-outs (1). Thinking of Xmas presents, maybe, our men were warned against a profiteering shopkeeper (2). Organizing a children's party, near Nijmegen, on the eve of St. Nicholas's Day (Dec. 6), the Yuletide festival in Holland, Canadians disguised as St. Nicholas and his "black boy" took a jaunt in a Bren carrier (3). Across the waste of waters, chilly vigil was kept by an outpost at Elst (4).

Photos, British Official; British Newspaper Pool, Associated Press



BRITAIN'S MIGHT IN THE AEGEAN is suggested by this photograph taken from the escort carrier Attacker, showing the carriers Khedive, Stalker, Emperor, Hunter, Searcher and Pursuer, which in the winter of 1944 harassed the remnants of German forces still in that area. From Sept. 9 to Oct. 27, Royal Navy and Allied warships, by sinking 101,000 tons of enemy shipping and making daring raids on several islands, had established complete naval and air superiority throughout the whole of the Aegean. *Photo, British Official*

THE WAR AT SEA

by Francis E. McMurtrie

IN assessing the results of the second Battle of the Philippines, fought on October 23-24, 1944, it was pointed out that the severity of the Japanese defeat must ultimately entail the interruption of the vital communications upon which the maintenance of enemy armies overseas depends (see page 390).

With the latest American thrust, from Leyte into the island of Mindoro, the threat to these communications is enhanced. Its strategical position, 70 miles to the southward of Manila Bay, gives Mindoro an importance out of all proportion to its dimensions, 100 miles long by 60 miles broad. By occupying this island the United States forces under General MacArthur have cut the Philippines in half, isolating Japanese garrisons in the southern islands from those in Luzon. Already new airfields are being prepared in Mindoro from which planes will be able to operate in either direction. Ships and aircraft are also well placed to strike at the main shipping route through the South China Sea, the width of which between Mindoro and the nearest point of French Indo-China is little over 750 miles. Enemy forces in the latter territory, as well as in Siam, Burma, Malaya, Sumatra, Java, Borneo and Celebes, must obtain the bulk of their munitions and reinforcements from Japan by this sea route.

SHORTAGE of shipping has for some time affected the regularity of such supplies. In China the Japanese had advanced far into the province of Kweichow, threatening to cut the Burma-India road and even to drive the Chiang Kai-shek Government from Chungking (see p. 536). This threat has been averted by a retreat of over a hundred miles, brought about, it is believed, by the collapse of the enemy's supply arrangements. Thus Allied sea power, by destroying Japanese shipping, is already exerting its influence over the campaign in China. Moreover, the recent withdrawals in Burma are due to similar causes, for traffic by sea between Singapore, Sumatra and Rangoon has been brought to a standstill by the operations of British submarines, leaving all supplies to come by the slow and difficult land route from Siam.

With the transfer of the principal British fleet in the East from the Indian Ocean to the Pacific, the process of severing the tentacles of the Japanese octopus is likely to be accelerated. After reaching his new base at Sydney, Admiral Sir Bruce Fraser proceeded to the U.S. base at Pearl Harbour for a conference with Admiral of the Fleet Chester Nimitz and General MacArthur. Measures will there be concerted for the destruction of Japan's still substantial resources of naval and military strength.

In the conquest of Leyte and Samar the United States forces are now known to have killed 82,554 Japanese soldiers. Many of these were lost in transports sunk by American sea and air attacks. Some further information has also been released concerning the fate of enemy aircraft carriers in the Pacific. When war began, the Japanese Navy is known to have included eight fleet aircraft carriers. Two of these, the Ryuzyo and Hosyo, were quite small ships of between 7,000 and 8,000 tons displacement, useful mainly for training. The remaining six were all employed in the surprise attack on Pearl Harbour on December 7, 1941.

FATEFUL Days for Aircraft Carriers of the Japanese Navy

Four of these carriers were sunk in the Battle of Midway in June 1942. These were the Akagi and Kaga, each of 26,900 tons, and the Hiryu and Soryu, each of 10,050 tons. This left the two newest, the Syokaku and Zuikaku, still in service as the backbone of the enemy carrier force. Their exact dimensions are unknown, but they were certainly over 20,000 tons in displacement. In the first Battle of the Philippines, fought between U.S. naval aircraft and a Japanese squadron last June, the Syokaku was destroyed, together with a smaller carrier of escort type. Thus the Zuikaku was left as the sole survivor of the original six that were in operation against the U.S. Navy at Pearl Harbour. Her end came in October, when she was overwhelmed by the attacks of carrier-borne aircraft of the Third Fleet under Admiral Halsey, during the second Battle of the Philippines. Three smaller carriers were also sunk.

VICE-ADML. SIR ARTHUR POWER, whose appointment as Commander-in-Chief, East Indies Station, was announced on December 11, 1944. *Photo, Elliott & Fry*

THERE have been many speculations about the identity of the carrier the enemy lost in the Battle of the Coral Sea in May 1942. At the time her name was reported as Ryukaku, and she was supposed to be a third ship of the Syokaku type. It is now understood that her name was Shoho, and the Japanese official statement that she had been converted from an oil-tanker is quite possibly true. Other enemy carriers that have been sunk are believed to have been similar conversions, either from tankers or from large passenger liners. Exactly how many ships were so transformed it is difficult to ascertain, but the number may have reached a dozen. If so, it is improbable that more than half of them are still afloat.

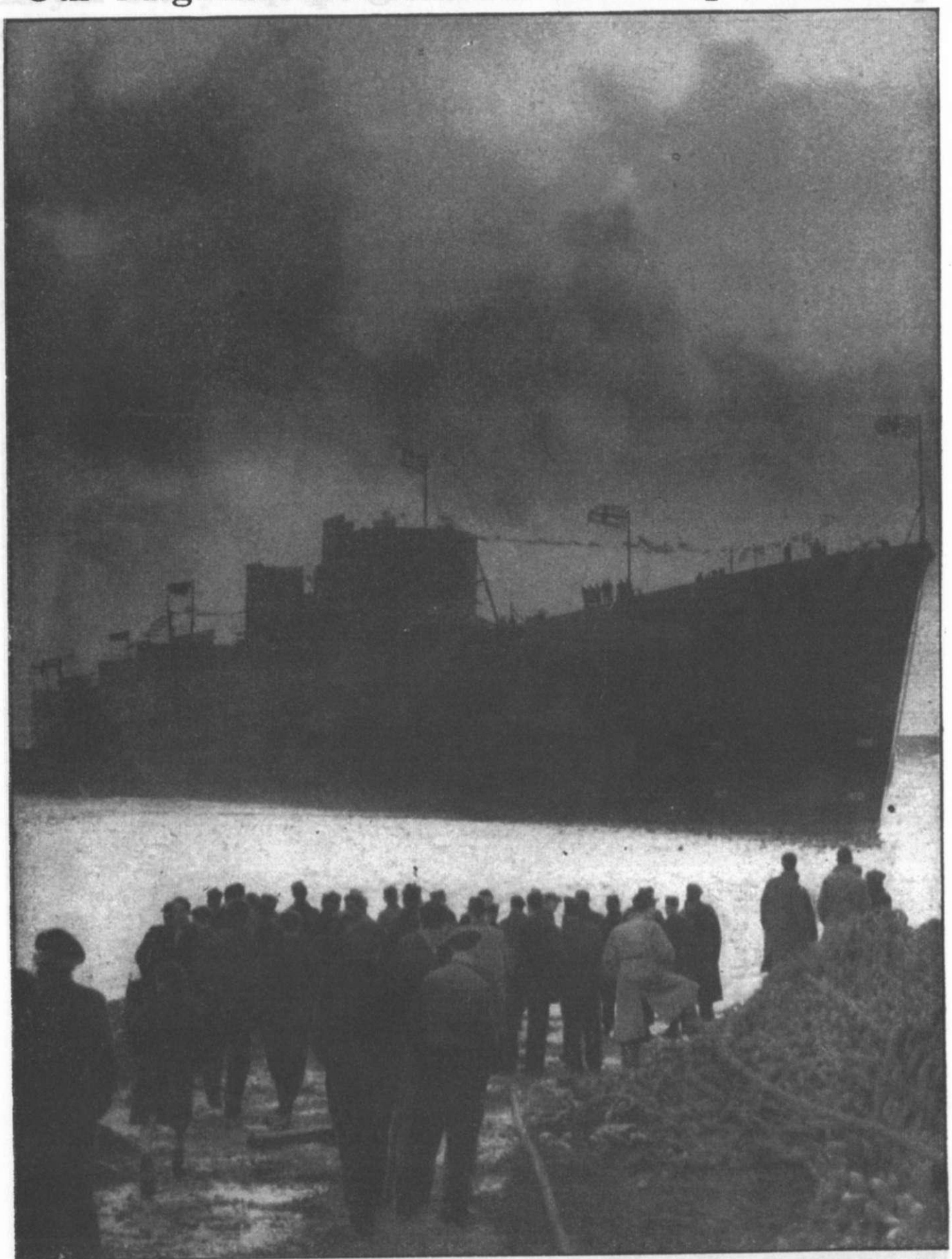
Photographs of sinking Japanese destroyers that have been published recently support the belief that a great many of small size have been built. They appear to be somewhat smaller than our "Hunt" types, or the American "destroyer-escorts," and are possibly no larger than the average corvette, though in appearance they come closer to the destroyer form. This explains to some extent the fact that, in spite of very heavy losses, the Japanese supply of destroyers does not yet seem to be exhausted.

THERE have been expressions of surprise in uninformed quarters at the news that in the Pacific the chief command of the Allied fleets will be exercised by the American Admiral Nimitz. There is, in fact, nothing remarkable in this, when it is considered that the United States Navy will be contributing by far the largest proportion of the Allied sea forces operating in that ocean. It is only logical that the nation with the biggest contingent should have the senior command, and in the past this principle has been well understood. In the last war the chief command in the Mediterranean was exercised by a French admiral, subordinate commands being held by British and Italian flag officers. For three years past an Australian squadron has formed part of the United States fleet in the Pacific, so with the transfer of Admiral Fraser's fleet this arrangement is perpetuated on a larger scale.

In the invasion of North Africa, the landings at Salerno and Anzio, and the invasion of Normandy, American flag officers served under the chief command either of Admiral of the Fleet Sir Andrew Cunningham or Admiral Sir Bertram Ramsay. So smoothly did everything work that it has been emphasized in official reports that for all practical purposes the naval forces concerned operated as one fleet. It may be assumed that in the Pacific results will be equally satisfactory.

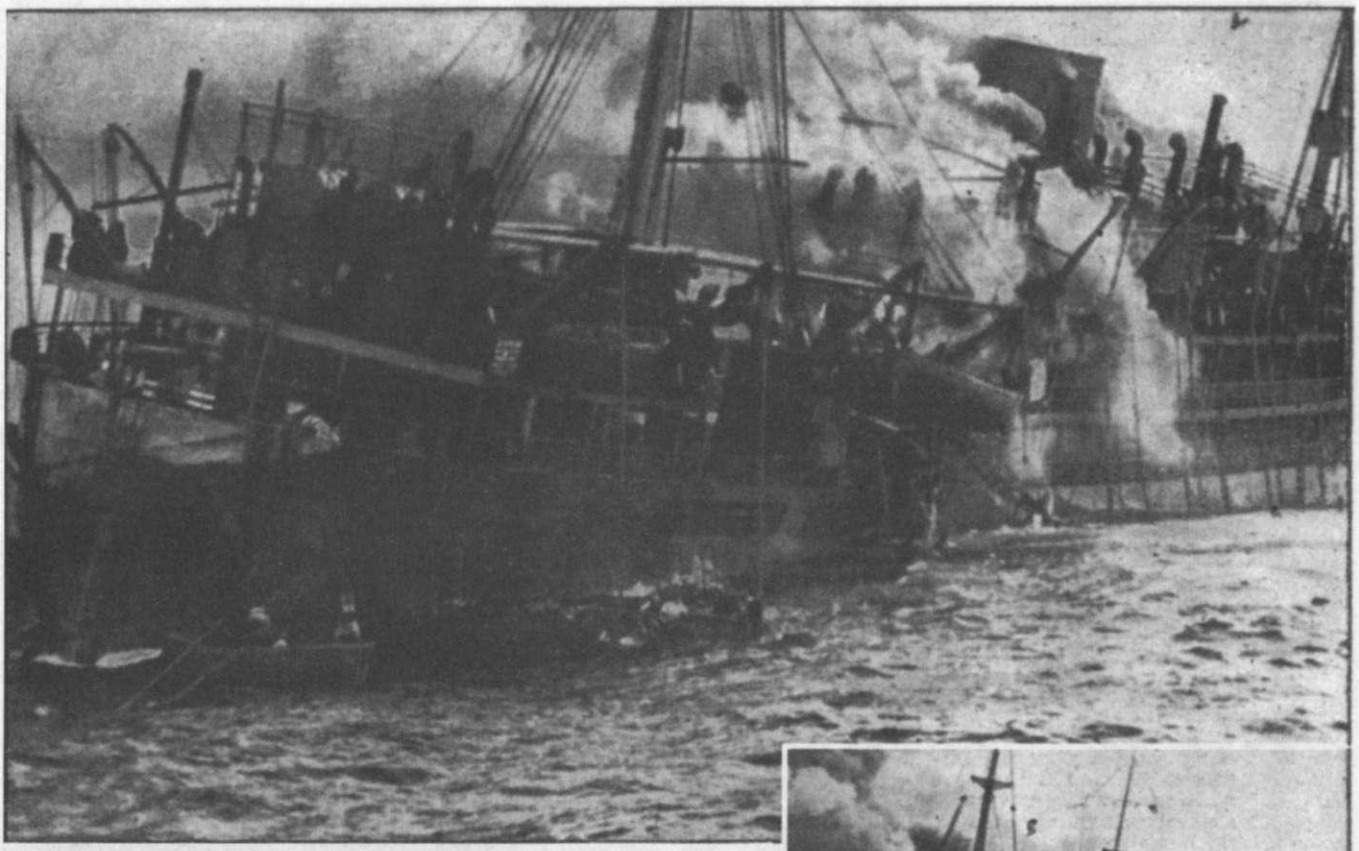
The situation has been further simplified by the promotion of Admiral Nimitz to the newly created rank (in the U.S. Navy) of Admiral of the Fleet.

Our Mightiest Home-Built Battleship Launched

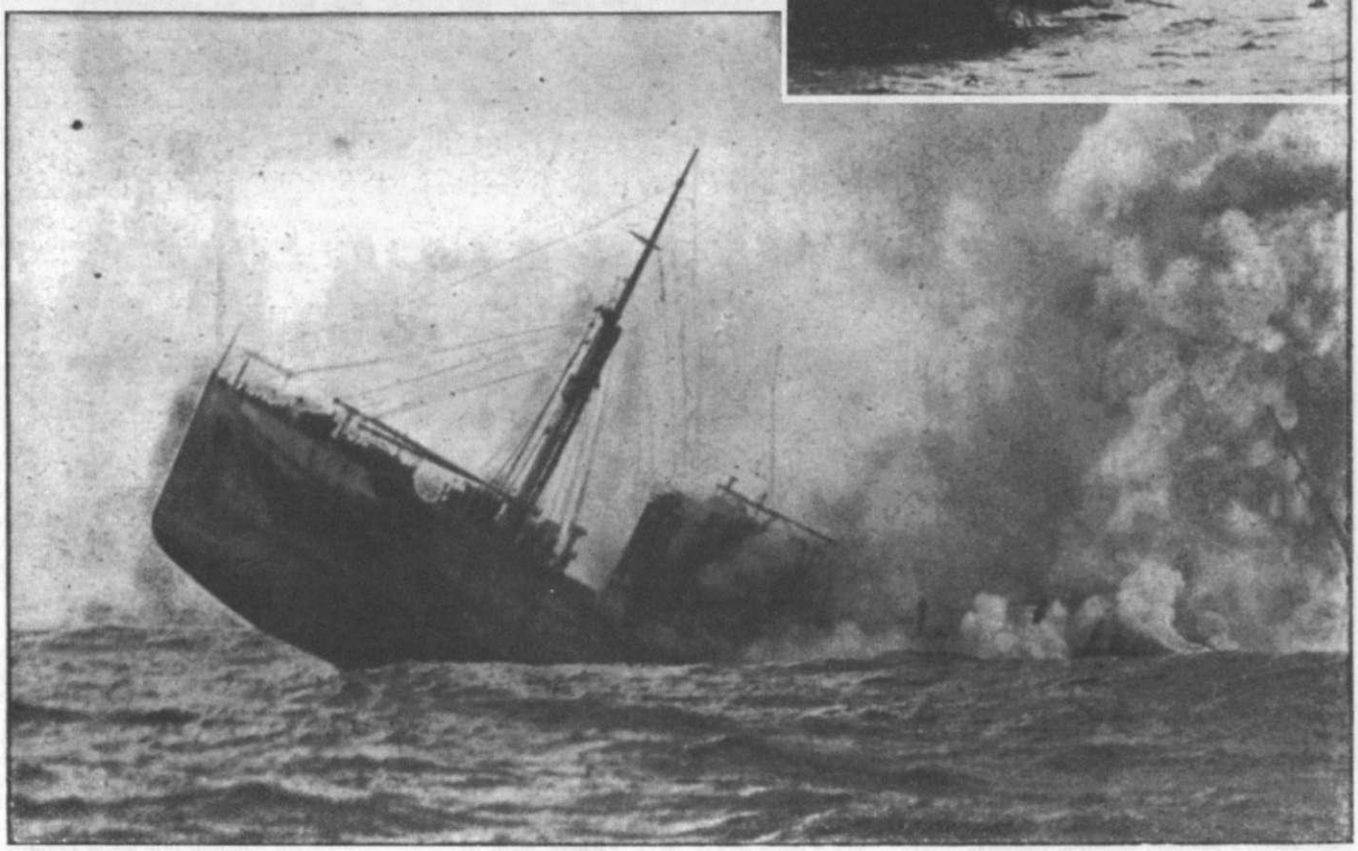


"MAY GOD BLESS ALL WHO SAIL IN HER!" said Princess Elizabeth when (as announced on December 1, 1944) she launched at a northern port the greatest battleship yet built in the British Isles. Though the ship's name, type, and class were not disclosed for security reasons, it was stated that her ultra-modern equipment would include "electric eyes," a British invention capable of piercing the thickest fog and darkness and detecting the enemy's position, speed, and course. *Photo, P.N.A.*

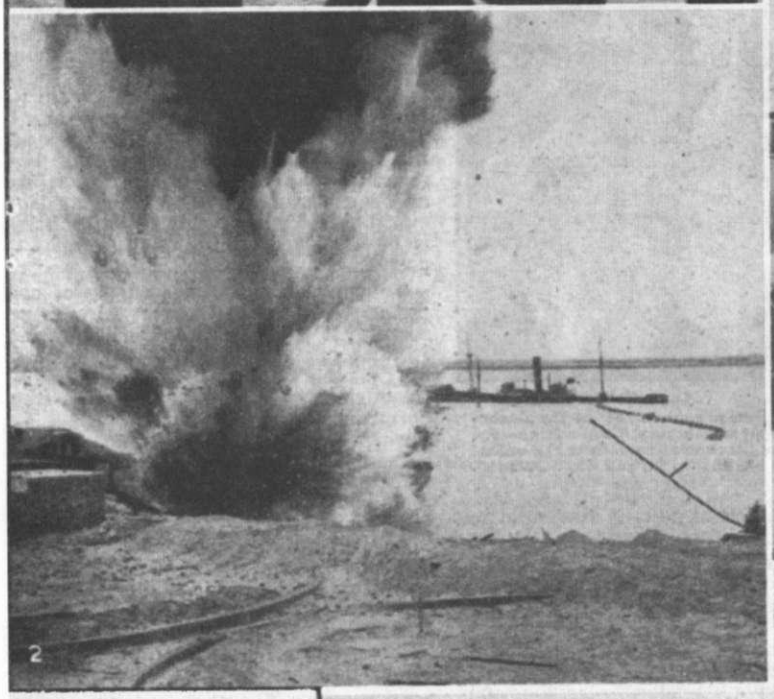
When the Bombed and Blazing Apapa Went Down

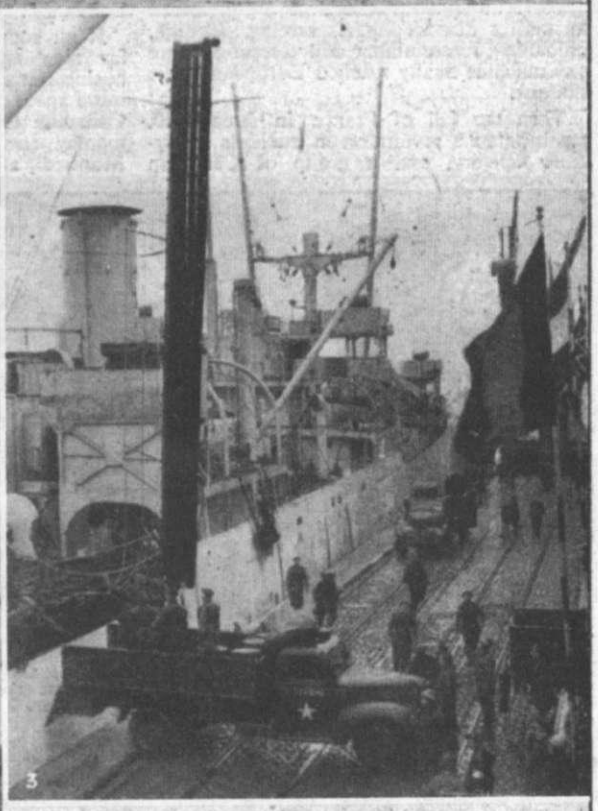


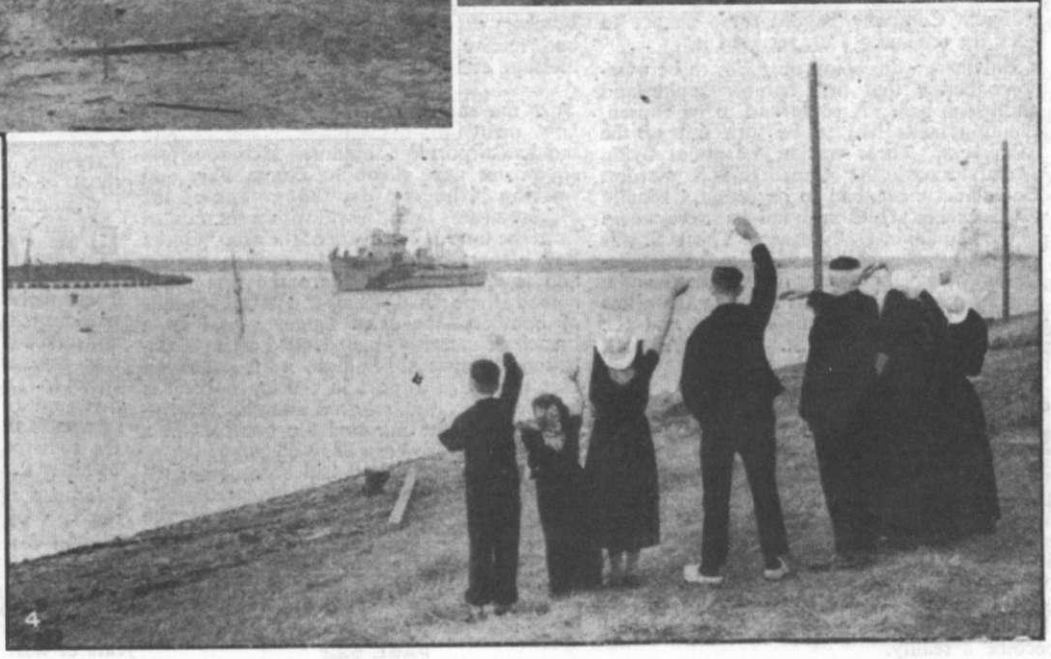
IN A U-BOAT INFESTED SEA survivors were taken off a blazing British liner bombed by enemy aircraft—thanks to the skill of the rescue ship's captain. That, briefly, is the story behind these remarkable photographs released for publication on December 1, 1944, though the incident occurred in 1941. The liner was the Elder Dempster 9,000-tons Apapa. The rescuer was the much smaller Highland Star ; the captain brought the stern of the vessel (extreme right) so close to the Apapa that a large part of the latter's complement was able to jump across to safety. The Apapa's officers, having braved danger in their search for survivors, cleared the sinking liner in a whaler (top). The ship goes down (bottom) while U-boats lurk close by. *Photos, Central Press*



Royal Navy Swept Clear the Scheldt to Antwerp







CLEARING THE SEA APPROACHES to Antwerp, Europe's third greatest port, presented the Royal Navy with one of the biggest minesweeping tasks ever attempted, declared Sir Bertram Ramsay, Naval C.-in-C. Allied Invasion Forces, on November 21, 1944. Though the Germans used "every type of deviltry" to blockade the Scheldt Estuary before and after the Belgian city's capture on September 4 (see illus. page 442), a fleet of 70 R.N. minesweepers began operations under fire even before enemy guns had been silenced. By the end of November, Antwerp was receiving large convoys.

The first Liberty cargo ship sails up the Scheldt (1) and unloads supplies on a quayside hung with Allied flags (3). Against the background of a half-sunk ship (2) a mine explodes close inshore. Netherlanders cheer the first minesweeper to reach Terneuzen (4).
Photos, British Official; Associated Press

How They Built Up R.A.F. Transport Command

Not so long ago all military aircraft crossing the Atlantic made the trip lashed to the decks or in the holds of cargo ships. Now bombers fly the North and South runs every day of the year despite ice or scorching heat or raging tempest. How this triumph has been made possible is told here by R. H. MEEK. See also page 362, Vol. 7

THE organization responsible for today's efficient functioning is known as the Atlantic Group of the Royal Air Force Transport Command; on its duty rosters are listed the names of Fighting Frenchmen, Cubans, Norwegians, Poles, South Americans, Netherlanders, as well as men from the U.S.A. and Canada.

Three months before the outbreak of war a conference in London of international postal authorities decided that a North Atlantic route was not feasible for any regular airmail run, especially during winter. Also falling into line, wartime aviation authorities agreed on surface crossings for aircraft in spite of the time lag involved in taking aircraft apart, crating, loading, unloading, reassembling and retesting before any machine finally reached European battle stations.

Then the fall of France in June 1940, precipitated a revolution in methods of aircraft delivery, and a group of Canadian business-men, flyers, and engineers decided to take a crack at flying bombers to Britain. Airminded officials of the Canadian Pacific Railway Company begged for a chance to back the scheme. They received it.

During the next year President Roosevelt offered to form in the U.S.A.A.F. a ferry command, part of whose duties would be to fly bombers from the U.S. to Canada. The President wanted these men to hand over on the Canadian side to a military organization, so the R.A.F. Ferry Command was born. The business of landing the aircraft at the border to have them towed across an imaginary line by a team of horses was eliminated. The United States turned over to the British for the period of the war all American personnel employed on the Atlantic bomber ferry. In April 1943 the organization became known as the R.A.F. Transport Command.

It all sounds simple, but its effects were far reaching. In 1941 the bomber ferry business was outgrowing its stove-pipe pants; more space and facilities were needed. The Canadian Government went to work on a marshy stretch of land 12 miles out of Montreal, at Dorval, and four months later one of the safest airports in the world was ready for use. Today Dorval is the nerve centre of the north and south Atlantic bomber express. British W.A.A.F.s send and receive one high priority secret code message every minute.

Capt. R. ALLEN Capt. C. W. A. SCOTT Capt. G. R. BUXTON

PIONEERS OF TRANSATLANTIC WINTER FLYING, these pilots are employed on the all-the-year-round England-America return service of the British Overseas Airways Corporation—the only civil air line to have operated in both directions throughout three winters. Up to the end of November 1944, Captain Scott had made 97 Atlantic crossings, Capt. Buxton 96, and Capt. Allen 95.

Photos, Planet News

AWAITING the intrepid airmen and their precious charges at the end of the next leg of the trip were runways which had been flattened out of the snow in the wilds of Newfoundland; and on November 10, 1940, 10½ hours after a handful of people had stood and watched while seven Hudson bombers roared down the makeshift runway and spread their determined wings above the Newfoundland evergreens, the R.A.F. in Britain was richer by seven aircraft and the trans-Atlantic ferrying of bombers had become a reality.

But there were many obstacles to be overcome before that first bomber could land on British soil. A route had to be chosen. Landing fields had to be torn out of the wilderness. There was a law about flying aircraft across the Canadian-U.S. border. Competent crews had to be found. Finally 50 Lockheed Hudson bombers were flown to the Canadian-U.S. border. The U.S. was not yet at war, so to avoid legal entanglements the planes were towed across the line by horses and tractors. Then the pilots climbed back behind the controls and the planes were flown to St. Hubert Airport, Montreal.

AT the same time the Canadian government sent engineers and workmen to build an airport in Labrador. Men, food and equipment were flown to Goose Bay, and working 24 hours a day they completed the biggest airport in the world within six months from the time of discovery of the site. Goose Bay airport cost about 15 million dollars and is still growing. Since the first plane landed there in December 1941 thousands of bombers—the exact figures would be a breach of security—have landed on its 6,000-ft.-long runways. Suffice it to mention that this huge airport in the icy north has handled—received, serviced and dispatched—as many as one hundred big bombers in a single day. (See page 88, Vol. 7).

Another great airport had been completed previously at Gander, Newfoundland. (See pages 98-99, Vol. 4.) Subsidiary bases for the north Atlantic run were also laid out in Maine, U.S.A., Nova Scotia, New Brunswick, Greenland and Iceland. Flyers using the Labrador base were delighted to find that the weather there was in their favour. There has not been a single non-flying day in the past one and a half years around Goose Bay. This is probably why Transport Command people enthuse over the post-war possibilities of their pioneer work. It is true they have literally altered the centre of gravity of the world's communication routes.

It is now obvious, say the experts, that express air traffic of the future will fly the northern routes from North America through Canada to Europe and Asia. The northern hemisphere contains nine-tenths of the world's population and the majority of the large cities; the shortest route from San Francisco to Moscow goes through Edmonton, Alberta. When Montgomery faced Rommel at El Alamein, and the whole of North Africa was in danger, Transport Command flew bombers from America through Dorval to Cairo, just behind the fighting front.

Flying School for Ferry Pilots

A civil pilot of Transport Command, Capt. Maurice Gill, accomplished the fastest flight yet made across the Atlantic, on Nov. 29, 1944. He was flying a Canadian-built Mosquito, and the flight of 2,230 miles from Goose Bay, Labrador, to a north British base took six hours and eight minutes. The fastest trip recorded thus far on the bomber ferry from Montreal to Britain was 11 hours and 35 minutes; this was done by a fully loaded bomber on the 3,200 mile run. Flying time from the coast of Newfoundland to the coast of Britain has been as low as six hours and 10 minutes. However, the average bomber flight to Britain is 14 hours and the return trip against the prevailing winds takes 16½ hours.

To provide an adequate supply of competent pilots, British Overseas Airways personnel got together with Canadian Pacific Airlines officials, and a flying school for ferry pilots was instituted in Canada in 1940. Requirements for a pilot's job with Transport Command are so tough that R.A.F.T.C. is virtually breeding a new race of airmen. A man must first be supremely physically fit. He must have not less than 750 hours flying time on two-engined craft, have a commercial licence, and be "top-drawer stuff" on blind flying. If a man fulfils these conditions he then attends T.C. schools at Dorval or North Bay, Ontario. Pilots and co-pilots coming from the R.A.F. and R.C.A.F. must have completed a tour of 30 bombing operations over enemy territory before they become eligible for Transport Command. Some pilots on the bomber ferry have done 80 sorties over Europe and most of these men have won decorations for gallantry.

DAILY flights both ways across the Atlantic are handled by the British Overseas Airways Corporation for the R.A.F.T.C. These flights carry urgent war freight, diplomatic mail pouches, as well as diplomats and officials of the United Nations on urgent war business. They carry mail and bring back to Dorval the air crews which have delivered bombers overseas. The Montreal airport is the home base of the Commando, the four-motor Liberator used to fly Prime Minister Churchill on many of his long trips.

Transport Command is continually developing new equipment and methods for long-range big plane flights. When the order is given to cease fire the organization will be in a position to switch over from carrying war supplies to the fast transport of medicine, food, machinery and other necessities for rehabilitation of the nations ravaged by years of war.

British Troops in Conflict with Greek Rebels

CIVIL STRIFE IN ATHENS broke out on December 3, 1944, when police fired on an EAM (Left Wing) demonstration against the Government of M. Papandreou. Troops were detailed by General Scobie, commanding British land forces in Greece, to keep order among the newly liberated populace, but without success. By December 12, General Scobie's demand that the guerillas should hand in their arms having been ignored and after casualties had been suffered by our troops as well as by the opposing Greek factions, the situation had grown so serious that Field-Marshal Sir Harold Alexander, Supreme Allied Commander in the Mediterranean, and Mr. Harold Macmillan, British Resident Minister, Mediterranean, were dispatched to Athens.

EAM is the political, and ELAS, whose guerillas are said to number 60,000, is the military organization of the Left Wing. EDES, the army of Gen. Zervas, represents the Right Wing partisans.

A BRITISH-MANNED SHERMAN gate-crashed the heavy door (1) barring the entrance to the EAM headquarters in Athens, on December 3, 1944, and men of the Royal Armoured Corps rushed in; one N.C.O. was killed. General Scobie, commanding British land forces in Greece, confers (2) with General Stephanos Seraphis, leader of ELAS (left), and General Zervas, commander of the EDES (right); while British parachute troops (3) manned a Bren gun post at street corner. See eye-witness story in page 537.

Photos, British and U.S. Official

Scientists Battle for Precious Lives in the Far East

Mosquitoes can be as deadly as Japanese. By both pests—insect and human—are the lives of our fighting-men in Burma and the Pacific imperilled. How Allied scientists and the medical services are conducting a vigorous war-within-a-war is explained here by T. S. DOUGLAS. On the outcome of these battles against jungle diseases a great deal depends.

THE Allied armies in the Far East are fighting two wars—one against the Japanese and another against diseases that flourish in the jungle. Malaria, dengue fever and other afflictions are quite as dangerous as the bullets of the Japs, and only constant war on them makes fighting possible at all. Conditions for medical units are far more difficult in the East than anywhere else, but with new methods and new drugs have been performed what only a few years ago would have been considered " miracles " in keeping down casualties.

Just how serious a menace malaria can be was shown when Dr. H. V. Evatt, Australian Minister for External Affairs, revealed that more than 80 per cent of the Allied forces in New Guinea were attacked by malaria. In the first Burma campaigns up to 85 per cent of the men suffered from malaria. Today the position is very different. Malaria remains the great menace, but our armies have got to grips with it and a great degree of control has been achieved.

MALARIA is spread by the blood-sucking female mosquito. The basis of prevention, then, is destruction of the mosquito, draining or otherwise dealing with its breeding grounds, and the wearing of protective clothing that prevents the little flying pest from biting. Destruction of the insect itself is not easy, for Anopheles—the malaria-carrying mosquito—thrives everywhere in the East. The new insecticides, and especially the insecticide " bomb " which sprays the air with a deadly and very effective poison, enable huts, tents, and so on, to be cleared simply and effectively. A " bomb," about twice the size of a grenade, contains some hundreds of charges. One is enough to kill every mosquito in a small tent ; a dozen will clear the fuselage of a bomber.

But unless the tent is mosquito-tight, others will eventually get in ; and Anopheles will enter a hut every time the door is opened. Destruction of mosquitoes will, of course, reduce the chances of being bitten. But for thousands of men in the front line who have to sleep in the open insecticides can help little, although an anti-mosquito cream rubbed on the exposed skin has been helpful. One of the difficulties is that the great heat leads men to discard clothing, thus increasing the area available for a mosquito bite. Now they realize that profuse sweating in clothes is generally better than getting bitten.

Aeroplanes Versus Aquatic Larvae

Clearing the breeding grounds of the mosquitoes near all camps is one of the most effective measures. The mosquito lays its eggs on the surface of stagnant water—ditches, ponds, swamps, fresh water of any kind. If the water is sprayed with oil, the aquatic larvae which hatch out of the eggs are suffocated. Great quantities of oil are used for this purpose, and the spraying has to be repeated at weekly intervals. Paris green is also used on marshes, and aeroplanes with special spraying devices have been used for this " dusting," covering in an hour areas that would take a week or more to treat from the ground.

But, obviously, such measures cannot be taken by troops when they are fighting and moving into new areas. Protective clothing, and especially mosquito netting, is helpful. But it is not easy to rig mosquito nets under active service conditions, and a hand or foot has only to protrude from the net for a minute during the night for Anopheles to do her deadly work. In some of the U.S. camps one man does a mosquito-net patrol all night, pushing back under the net the feet and arms of sleepers.

MULES TAKE SURGEONS TO THE BURMA WOUNDED

A MOBILE surgical unit, carrying its equipment on mules, has crossed the Chindwin and is pushing steadily forward with British and Indian troops of the 14th Army, ready to carry out the most delicate operations within 20 minutes of arrival in any battle area. A medical staff officer said :

" Battle experience has proved that we must try to bring the surgeon to the patient. The specially blacked-out operating tent can be erected in five minutes. Most of the operations will be carried out by the light of a specially constructed headlamp. The patient will receive two to three days' post-operation treatment and will then be evacuated.

" Our mobile surgical unit has performed almost every type of operation. During the siege of Imphal 5,000 cases were dealt with in one month. Penicillin will be air-dropped with other medical requirements."

Major K. van Someren, of Park Road, Edinburgh, is in command, and Major J. D. Laycock, of Rockland Road, Grange-over-Sands, Lancs, is the unit anaesthetist.

The most effective weapon against malaria, where front-line troops are concerned, has been a drug—mepacrine, or atabrine as it is called in the U.S. It is a little yellow pill and taken regularly it will ward off malaria. Mepacrine has proved virtually one hundred per cent effective in preventing malaria, as long as it is taken regularly. When the drug is stopped a certain number of takers may develop malaria, for it does not give immunity —but it certainly enables the men to have their malaria in comfort, so to speak. That is, the malaria is warded off until the soldiers have returned to base, where they can be given hospital treatment. One U.S. correspondent reported that when beds were short, doctors were naming the date when soldiers could have their malaria !

Recently it was announced that 33 million doses of mepacrine were being prepared, and it is now a routine matter for men in the fighting lines to take their pills. It has proved so effective that the Japanese have been putting out special propaganda designed to discourage men from taking mepacrine.

ANALYSING SWAMP-WATER on the Moluccas island of Morotai, in the S.W. Pacific, a U.S. Navy malaria control team is grateful for the protection of a gunner, for there are snipers about as well as disease. *Photo, U.S. Official*

But long and detailed experiment has shown that it cannot in any way harm the taker. It is worth noting that the Japanese are no more immune from malaria than our men—the mosquito bites without prejudice as to race or colour. Japanese anti-malarial measures are less effective than those of the Allies, despite the fact that in the East Indies they captured almost the whole of the world's sources of quinine, great specific for malaria.

One of the big problems in Burma has been the removal of men when they are sick or wounded, for many units are cut off from motor transport. Now, moving casualties by air has been brought to perfection. Small landing strips are continually being cut behind the advanced units. From these, light planes (see illus. p. 343) carry the casualties to larger strips, whence they are transferred to specially equipped Dakotas. These fly them to base hospitals, thirty at a time. Whatever the conditions, sick and wounded have never been left behind. By mule, or on an improvised stretcher borne by comrades, the casualty may be carried over difficult trails to the nearest airstrip.

Clouds of Insects Everywhere

On arrival at an advanced hospital a casualty is at once classified. If he needs special treatment or is unlikely to be fit again within a couple of months, he is flown, or taken by boat or hospital train, to India. Incidentally, every division in Burma has a front-line psychiatrist, for jungle warfare is particularly liable to produce shock and nervous strain. Statistics show that 90 per cent of the men they have treated return fit and well.

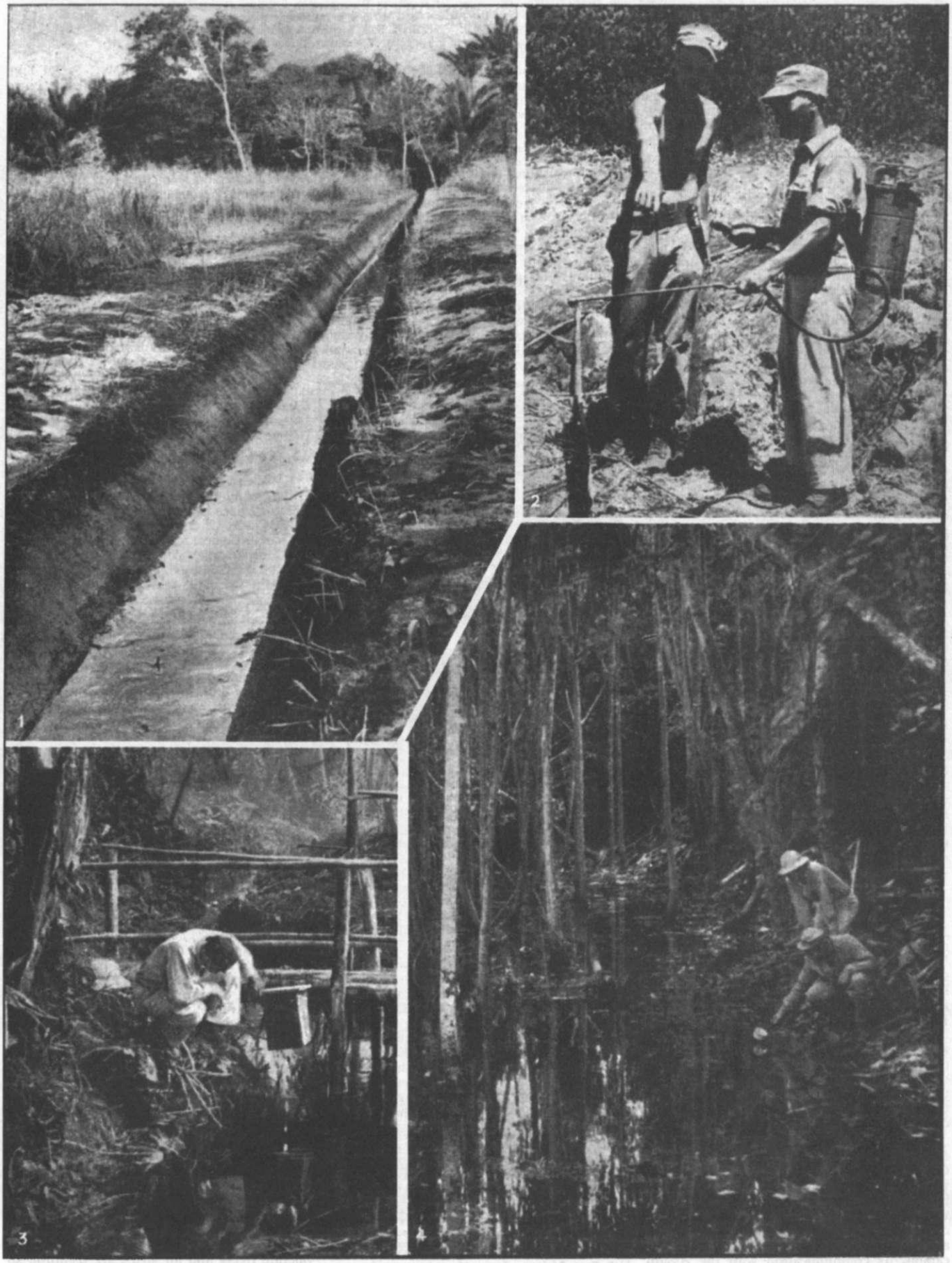
Just how far the Allies have gone in the prevention and treatment of malaria, dengue fever and other insect-carried diseases was revealed by Brigadier-General R. W. Bliss, assistant surgeon of the U.S. Army, after he returned from a tour of the Far East front recently. " When we first took over the Pacific Islands," he said, " there were clouds of insects everywhere, actually making it difficult to see. Today, if we locate one mosquito we consider it comparable to finding a four-leafed clover ! "

He described how, on Saipan, medical sanitary squads divided the island into squares, like a chess board, and proceeded to kill every mosquito and drain or spray every potential breeding ground. D.D.T., the wonderful insecticide which ended the typhus epidemic in Naples, was sprayed from tree-top height by daring pilots. Dengue fever, also passed on by mosquitoes, was rife but has now practically disappeared. And Saipan island has a " quarantine " so that no new mosquitoes can get in or out : every plane arriving or leaving has an insecticide bomb fired off in it before it lands or takes off.

ON Saipan, Japanese medical stores were captured intact. They showed the poverty of their equipment compared with our own. The standard Japanese outfit consists of eight items. The standard U.S. equipment consists of 600 items. There seems no doubt the Japs have suffered much more heavily from sickness, and their surgeons have had orders to kill sick and wounded who showed little hope of rapid recovery.

There was recently tested a new " insect-proof " uniform. A number of men, who volunteered, sat for an hour in a mosquito infested spot, half of them wearing the new uniform, half the old. The men in the new uniform averaged less than one bite apiece, those in the old uniform averaged 19 each.

Annihilating the Deadly Malaria Mosquitoes



BATTLING AGAINST MALARIA, experts in 1944 reduced the incidence of the disease to 80 cases per 1,000 men, as told in the facing page. Method of draining a mosquito-breeding swamp in New Guinea (1). Where drainage is impracticable, oil—or the highly effective new chemical Aerosol—is spread on the water : in North Burma a Chinese soldier is taught to spray oil on water-filled shell-holes (2). Adjusting an oil drip-can over a New Guinea stream (3), and testing a jungle pool for the presence of larvae of the virulent Anopheles (4).

Photos, U.S. Official

A Simplified Guide to the Burma Campaigns

Our readers may not find it easy to follow the course of events in Burma, with fighting raging in widely separated areas whose geography is unfamiliar and with few outstanding names to serve as guide-posts. Maj.-Gen. Sir CHARLES GWYNN, K.C.B., D.S.O., in this broad outline of past and present operations makes clear the nature and purpose of the war in this arduous country.

AFTER the retreat of General Alexander's troops and General Stilwell's Chinese forces from Burma in the spring of 1942, the primary object was to prevent a Japanese invasion of India. For that the C.-in-C., India, General Sir Archibald Wavell, was responsible, and with that object the counter offensive into the Coastal Arakan district of Burma was undertaken in 1942. General Wingate's experimental Chindit operations were also authorized. (See p. 46, Vol. 7.)

But at the Quebec Conference (August 1943) plans were approved envisaging a counter-offensive against Japan which would have overburdened the C.-in-C. in India, and the South-East Asia Command (SEAC) was therefore established (August 1943) with Admiral Lord Louis Mountbatten in Supreme Command. His headquarters were moved to Kandy, in Ceylon, in April 1944. One of the chief tasks envisaged for SEAC was the reconquest of Burma and the reopening of land communication with China.

OWING to shortage of shipping and demands in the European theatre, amphibious operations for the time being were out of the question; but it was decided that land operations might be undertaken in support of General Stilwell's project of opening a road between Ledo and that part of the Burma road still in Chinese hands. The task of covering the construction of the road was left to General Stilwell, with his Chinese troops, trained and re-equipped in India after their withdrawal from Burma, assisted by American specialized troops and native levies. In order to interrupt the communications of the Japanese opposing his advance, the 3rd Indian Division, trained under General Wingate as an airborne force, was to be landed near the Mandalay railway and from there operate, on Chindit principles, under his general directions.

In order to maintain pressure on the Japanese, the operations in Arakan were to be resumed, and the troops from Manipur were to improve communications to the Chindwin valley and operate across the river. Both these operations were to be carried out by the 14th Army under General W. J. Slim, composed of the 15th Corps in Arakan, the 3rd Corps in Manipur, with the 33rd Corps in reserve.

Japanese Caught Between Two Fires

With the opening of the dry season, in January 1944, the 7th and 5th Indian Divisions advanced in Arakan. After some progress had been made the Japanese counter-attacked strongly by sending a powerful force round the flank of the leading 7th Division, cutting its communications and isolating it. The Division formed a defensive "box" and beat off all attacks; while the 5th Division, which was following, undertook operations to clear the road. Eventually, with the help of the 26th Indian Division attacking from the north, the Japanese encircling move was caught between two fires and was heavily defeated by the end of February 1944.

Early in March interest was transferred to the Manipur front. Patrols operating in the Chindwin valley discovered that the Japanese were advancing in strength, and it soon became apparent that though the 4th Corps, with heavier armament than the Japanese could bring up, could confidently withstand attack in the open country round Imphal, the capital, its communication with the Assam railway at Dimapur might be cut, and the railway which provided General Stilwell's only line of communication endangered.

It was therefore essential that the 4th Corps should have sufficient offensive power to contain the main Japanese force, and the 5th Division was flown from Arakan to reinforce it—a remarkable feat of the air transport service, which also was able to relieve all anxiety about maintenance of supplies. The most immediate danger was that the 17th Indian Division, covering the improvement of the road to the Chindwin at Tiddim 100 miles to the south, might be cut off and overwhelmed. The Division was heavily attacked, but most skilfully and gallantly fought its way back to Imphal, which by the beginning of April was completely isolated.

THE danger to the railway at Dimapur matured when the Japanese sent a lightly armed column through very rough country to strike the main road, beyond reach of the Imphal force. But it found

NORTH BURMA FRONT, where by mid-December 1944 the 14th Army had taken Kalewa and bridged the Chindwin; and the 36th British Division with the Northern Combat Area Command had reached Katha.
By courtesy of The News Chronicle

the road blocked, 40 miles short of Dimapur, by a small mixed force holding Kohima, which included men of the Royal West Kent Regiment. Violently attacked by greatly superior numbers, the force stood a memorable siege and saved the railway.

Meantime, the 33rd Corps, with the 7th Indian Division flown from Arakan, and the 2nd British Division, recalled from training areas, concentrated at Dimapur in order to undertake the reopening of communications with Imphal. By the end of April the garrison of Kohima was relieved; but the Japanese held stubbornly to their grip on the road, and it was only after fierce fighting that contact with Imphal was again established, in the middle of June. The monsoon by then was in full blast, but General Slim was determined in spite of the weather to continue the offensive.

Actually it was the enemy that wilted under climatic conditions. Three Japanese Divisions that had risked the thrust towards Dimapur without adequate communications were thrown back to Ukhrul as a disorganized rabble and practically annihilated. Other forces, fighting hard, were driven back along the two better roads leading to the Chindwin by Tamu and Tiddim respectively, by which the enemy's original main advance was made.

With the opening of the dry season in October, General Slim's offensive gained strength, and the enemy was thrown successively out of his strong positions at Tiddim, Kennedy Peak, and Fort White. And by the end of November his advanced bases in the Chindwin valley at Kalemyo and Kalewa had been captured. By the beginning of December, bridge-heads were established across the Chindwin; and the 14th Army has now good prospects of co-operating with the Northern force in an advance to Mandalay.

Chindit Column's Daring Thrust

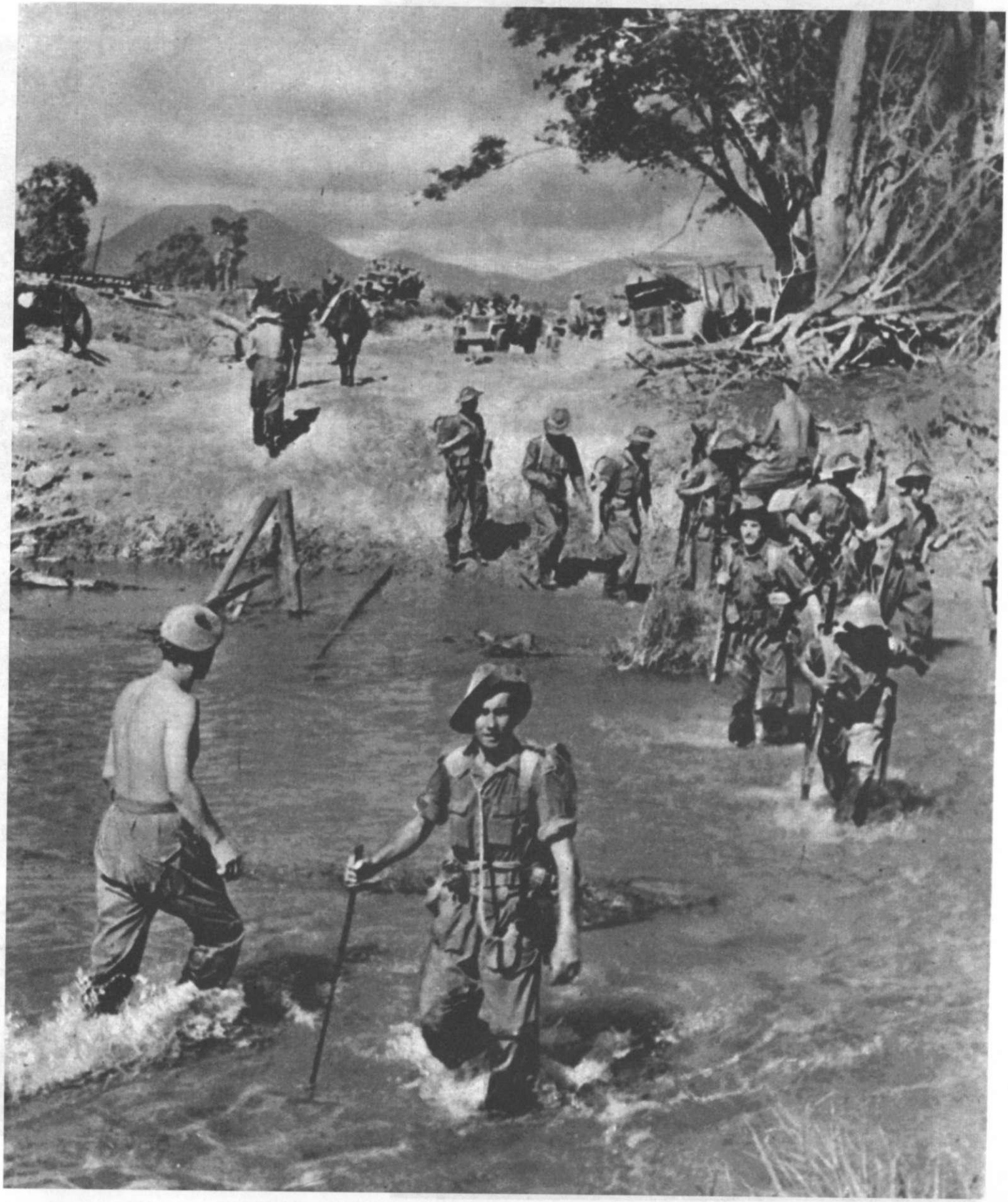
We now turn to the Northern operations. By the beginning of March 1944 General Stilwell had extended the road from Ledo 50 miles across the frontier covered by his Chinese troops, and had begun to encounter stiff resistance by the 18th Japanese Division in the difficult Hukaung valley. Undeterred by the threat to his communications at Dimapur, he continued to press on.

About the middle of March, as had been planned, General Wingate's 3rd Division was landed in the Katha region and set about the disruption of the enemy's communications, though it lost its Commander in an air accident. With the threat in their rear, the resistance of the 18th Japanese Division weakened, and General Stilwell, having cleared the Hukaung valley, organized a two-pronged drive—his main force advancing on towards Mogaung, while an American Commando force made a brilliant surprise thrust through jungle tracks to Myitkyina, capturing the airfield there on May 17. The Japanese, however, left a suicide force in the town, and to avoid unnecessary casualties our attack was not pressed home till much later (August 3).

The main column, meantime, encountered strong resistance at Kamaing, short of Mogaung, but a Chindit column (South Staffordshires, Lancashire Fusiliers and Gurkhas) by a daring thrust gained a footing in the latter town and with the co-operation of a Chinese force that had by-passed Kamaing, captured it on June 26. General Stilwell had now gained, by early July, a firm footing in the dry region of Northern Burma, including valuable airfields. And at Mogaung he had captured the main Japanese Northern supply depot. His main body, reinforced by the 36th British Division, began to advance steadily along the Mandalay Railway, while his Chinese troops thrust towards Bhamo, the head of navigation on the Irrawaddy and the starting-point of a road which links with the Burma-China highway near the frontier. Now, in December, a footing in Bhamo has been won, and another Chinese column has crossed the Irrawaddy between Bhamo and Katha, which the 36th Division captured on December 10. Ahead lies open country in which tanks can operate freely and air strips are plentiful, so that with the co-operation of the 14th Army, it is reasonable to hope that Mandalay may be reached and the Burma Road reopened.

BRITISH & EMPIRE DIVISIONS IN INDIA

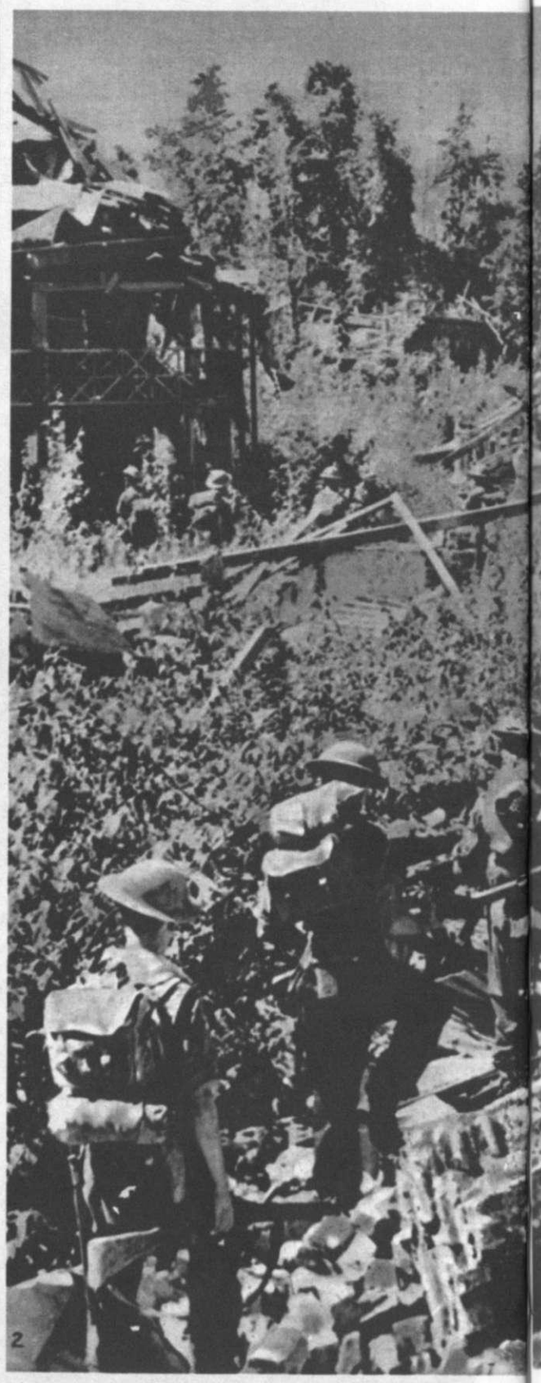
3rd Indian	Gen. W. D. A. Lentaigne, D.S.O.
5th Indian	Gen. H. R. Briggs, D.S.O.
7th Indian	Gen. F. W. Messervy, D.S.O.
17th Indian ...	Gen. D. Cowan, D.S.O.
20th Indian ...	Gen. D. Gracey, M.C.
23rd Indian	Gen. O. W. Roberts
25th Indian ...	*Commander not announced*
26th Indian ...	Gen. C. E. N. Lomax, D.S.O.
36th British ...	Gen. F. W. Festing, D.S.O.
11th East African	*Commander not announced*
81st West African	*Commander not announced*



Photo, British Official

Royal Welch Fusiliers are Bound for Mandalay

Here crossing the Nankye Chaung, troops of this famous Welsh regiment in General Festing's 36th Division began on Oct. 30, 1944, a fresh drive down the Myitkyina-Mandalay "railway corridor," through Hopin and Mawlu, which they captured on Nov. 2. From Hopin to Mawlu, which is north of the junction leading to Katha, key town on the Irrawaddy, is 75 miles—a 14-days' journey, with many road blocks to surmount, with jagged rocks or clammy clay of river-beds to hinder weary feet.



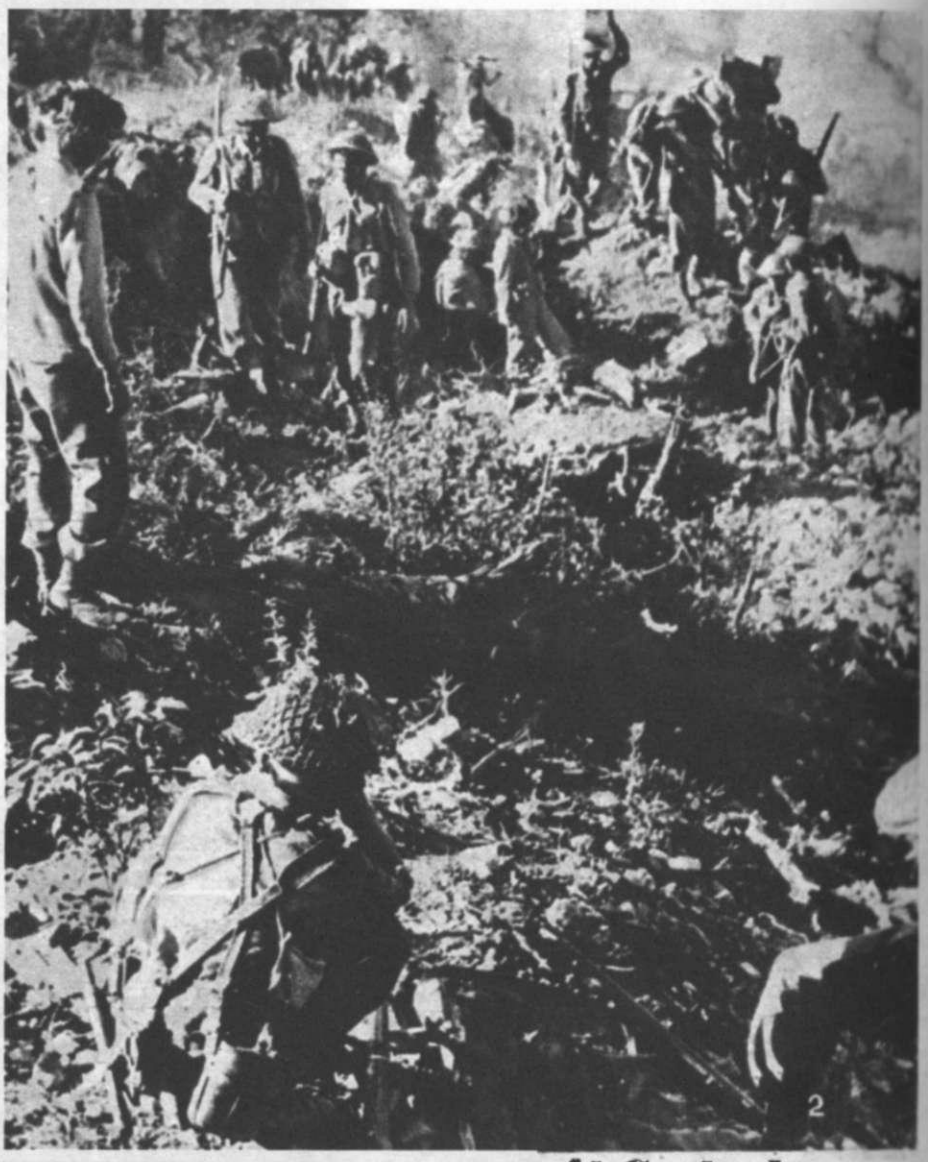
Japanese Fortresses Set in Mud and Scrub—

Through steamy little villages, all strongpoints of enemy resistance, the 36th Division of the British 14th Army in Burma, consisting of Royal Welch Fusiliers, Royal Scots Fusiliers and the East Lancs Regiment, advanced from Hopin to Mawlu against obstacles or resistance almost step by step. A patrol (1) edges its way through razor-sharp grasses in the jungle on the way to Mohnyin (2). Bomb-wrecked rolling-stock (3) was strewn over Mawlu station. (See map page 526.)

Photos, Briti[illegible] Official

—Wiped Out by British 36th Division's Drive

A 25-pounder gun captured by the Japanese and turned on to our lines was later abandoned in the mud of a deep crater, whence it was retrieved by our gunners and used (4) to hurry the retreating enemy. Beyond the captured fortress-village of Mawhan supplies had to be carried forward by mule (5) to Mawlu. Stretches of open trail were few and far between; mostly the advance down the "railway corridor" was through jungle so tangled as to be impenetrable even to the versatile jeep.



At Central Burma's Gates

Following hard on the link-up of the 11th East African Division and the 5th Indian Division, these two 14th Army formations which had been racing to reach Kalemyo shared the honour of capturing this former Japanese outpost at the foot of the Chin hills, on Nov. 16, 1944. Pushing on to Kalewa, last township of importance left to the enemy on this sector, men of the 5th Indian Division are serviced by Chin runners, one of whom is seen (1) taking over the mail. Kalewa was entered on Dec. 2. On the crest of a captured hill (2), spattered with the remains of Japanese bunkers. Gurkhas (3) travel in style on a Jap-hunt.

Photos, British and Indian Official

VIEWS & REVIEWS

Of Vital War Books

by Hamilton Fyfe

A Seaman Looks at the Merchant Navy

IT is amusing to remember that not long after James Thomson wrote Rule Britannia and started the legend that the English were a race of seafaring heroes, ruling the waves, Dr. Johnson was making the remark that in his opinion "no man would be a sailor who could get himself into gaol. For," he went on, "being in a ship is being in gaol—with a chance of being drowned. A man in a gaol has more room, better food, and commonly better company."

We cannot attribute that to the Doctor's ill-humour or whimsicality. It was a view generally held and there was justification for it, not only in his day but long after. Indeed, we are told by Mr. Stanton Hope in his Ocean Odyssey, a "record of the Fighting Merchant Navy" (Eyre and Spottiswoode, 12s. 6d.), that even twenty years ago there were "famous liners in which saloon passengers made their voyage in super-luxury, while the sailor, fireman and steward, to whom the ship was workshop and home, pigged it in cramped quarters, snugged down sleeping and eating their meals in an ill-ventilated fo'c'sle, damp from drying clothes and reeking with tobacco smoke."

Post-War Period Expectations

Some ships had wooden bunks, but more often than not hammocks were used which swung about with the motion of the vessel, banged their occupants against iron stanchions and made them prefer resting and "easing their bruised ribs" on the hard floor. Now, says Mr. Hope, there have been drastic changes which "will set the standard of accommodation expected in the post-war period." The crews' living quarters are being placed amidships in the newest types of tanker and cold storage freighter. There are two- and four-berth cabins. There is running water, hot and cold, with proper arrangements for washing clothes and drying them, and warm shower-baths instead of tubs filled with cold sea-water from the pump.

The food in merchant ships has also been greatly improved. Instead of salt pork and ship's biscuit forming the staple diet, there is variety—"fresh meat, fresh fish, eggs, smoked ham, bacon, green peas, butter beans, rolled oats, marmalade, jam, syrup, and butter of a quality and quantity to satisfy even the incorrigible 'sea-lawyer.'" The result of treating seamen as human beings has been that the traditional type of sailor has almost disappeared. They are no longer regarded as being outside the pale of common decency and common sense when they come ashore after a voyage. They are not the "easy meat" they used to be "for crimps in the noisome doss-houses to which they had to resort owing to their poor pay and the lack of better arrangements for their stay on land." They are not liable to be "robbed, drugged and shanghai'ed to awaken eventually in some hell-ship bound half-way across the world." Entertainment for them when they are in port is not left to missions managed by "well-meaning volunteers with elementary ideas of how to interest them." Tracts and cups of tea altogether failed to do so.

MR. HOPE tells of a concert he once attended in China when he was a seaman himself. It was arranged by British residents, who evidently enjoyed their own performances a great deal better than their audience did. The sailors would have liked to dance and could have obtained their tunes from a gramophone, but this "was not considered quite proper in the mission hall." Now recreations and amusements of many kinds are provided. The problem is not "What shall we do with the drunken sailor?" but "How can we make the men on whom our very existence has depended comfortable and contented?" Better educated than their forerunners, their "prestige was never higher"—never, indeed, so high. This is due to the change in their environment. Treat men like pigs and they will behave piggishly. Treat them as intelligent, responsible, decent-living people and they will respond immediately.

Mr. Hope has no difficulty in proving what magnificent work the Merchant Navy has done during this war. He takes a number of episodes, describes them in picturesque detail, and shows how resourceful as well as courageous, how adaptable as well as dogged, our seamen are. Here is one example. The captain of a collier was ordered to take aboard a cargo, not of coals but refugees from the Riviera. He found himself suddenly and for the first time entrusted with the care of several hundred passengers. Not in safe seas, but in the Mediterranean infested by Nazi submarines. It was "the most alarming crisis in his long sea-going career." He faced it as if it were just part of his normal everyday duty. At the other end of the scale we have the story of a young stewardess whose cool handling of her very grave responsibilities when her ship was sunk helped to save many lives and counteract any inclination to panic.

Quisling Ship That Lost Herself

The stories Mr. Hope has picked are full of many-sided interest. There is one of a "quisling" ship in a British convoy, which made an attempt to slip away. The attempt was foiled by a British boy who had shipped in the "foreign-built vessel, flying a different flag, captained by a foreigner and manned by assorted foreigners." The lad's suspicions was aroused by several odd happenings. The ship was "lost" and it seemed pretty clear that the captain did not want her to be found. At last the boy discovered that she was being headed for German-occupied Norway instead of taking the course prescribed for the convoy. He went up to the bridge and told the captain what he thought of him. This might easily have cost him his liberty, perhaps his life. But luckily just at that moment a British destroyer hove the quisling ship to, gave the foreign skipper his course, and added "If you don't get on it inside two minutes, I'll sink you." The fellow gave no more trouble. When the convoy reached its destination, a Court of Inquiry was held. Some day we shall know the result of it.

SOME of the seamen taken prisoner reported that German naval officers used stereotyped arguments which had evidently been supplied to them for use in conversation with Britons. One asked "Why do you come to help the Russians? You are not Bolsheviks." Another inquired "Why don't you British give up the war, causing all this suffering?" and added references to "pig-headed Churchill" and "the Jewish plutocrats" who were the "over-lords" of Britain. All this sort of talk was completely wasted, of course; but it is interesting to see how Nazi propaganda on the home front has twisted German mentality and made even their naval officers, who were once considered unusually sensible for Germans, talk such rubbish and ignore facts.

On the whole, they seem to have behaved more humanely than army officers. One told a batch of captives that they had behaved well and he hoped they would be well treated in return when they reached Germany. "In the last war," he said, "I was a prisoner in Australia and I have not forgotten the very good treatment I had there." Men who were in a Vichy-French prison camp gave a disgusting description of it, though it was admitted that some of the guards were kindly in their attitude and tried to diminish the discomfort of the "noisome" place. The food was very bad and all they had to sleep on was a straw palliasse with two thin blankets.

The average Briton's amazing, and occasionally tantalising, capacity for understatement comes out very vividly in these lively yet harrowing pages of Mr. Hope's. Here, at random, is a choice example:

> One merchant seaman of my acquaintance spent three days alone on a raft, tossed continuously in the long Atlantic rollers until taken off by a seaplane. When I commented sympathetically on his ordeal he responded, "Ay, I was damn glad to get out of that plane—it didn't 'alf make me sick!"

NONE of their experiences at sea or on land had the effect of making the cheery souls who figure in Mr. Hope's book want to give up their occupation or seek secure, cushy jobs at home. They did not speak about it, but they knew how their fellow-countrymen depended on them. The question which Admiral Lord Cork and Orrery puts in his Foreword to the book is, "Do their fellow-countrymen mean to see them let down again after this war, as they so shamefully were after the last?" They were allowed, he says truly, "to go through a terrible time and there was no national cry for justice to them." Lord Cork evidently thinks that a British Government might play the same low trick again. It rests, he tells us, "with our people as a whole to decide whether it does or not."

MAIL DAY FOR THE MERCHANT NAVY may mean the delivery of 6,000 letters to vessels in a single port, and a launch like the one shown here can take six hours on its rounds of ships at anchor. The incomparable M.N. is the subject of the book here reviewed.

Photo, British Newspaper Pool

Why Britain's Achievements Astound the World

In the sixth year of hostilities, Britain's War Cabinet has made possible the world-wide assessment of our stupendous effort—an almost incredible total of self-sacrifice and labour which has brought us to the threshold of victory. Facts and figures hitherto secret, presented dryly in White Papers, have stirred the imagination of mankind and evoked wonder even from our Allies.

GREATER than that of any other belligerent: thus can be summed up the war effort per head of the population (45 million) of Great Britain. Mobilized for every sacrifice, living and working under complete black-out for five years, "family life has been broken up, not only by the withdrawal of men and women to the Services, but by evacuation and billeting," says the White Paper (Statistics Relating to the War Effort of the United Kingdom, published by H.M. Stationery Office, 1s.).

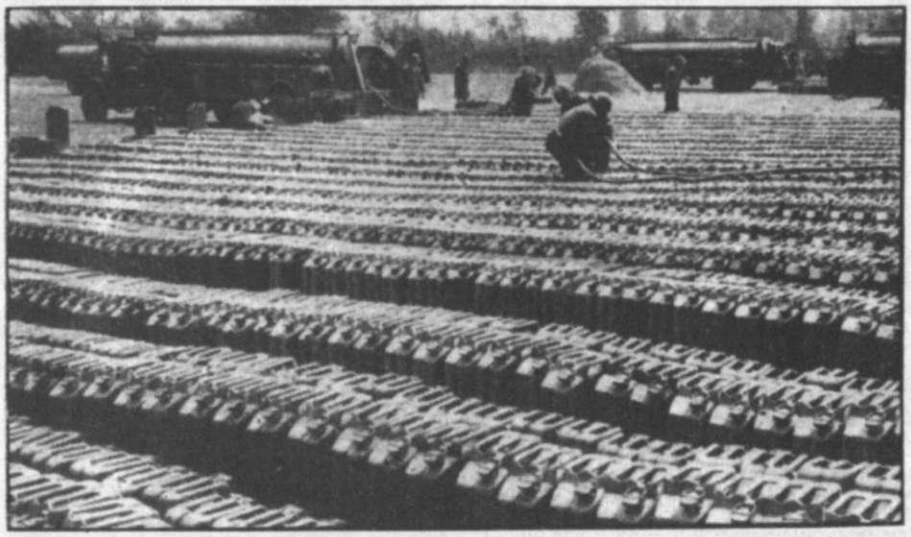
"Production has been made more difficult by the dispersal of factories to frustrate the air attacks of the enemy and by the need for training new labour to unaccustomed tasks. There have been two long periods when work was carried on under constant and severe air attacks. Since 1940, 1,750,000 men have given their limited spare time, after long hours of work, for duty in the Home Guard. Most other adult male civilians and many women have performed part-time Civil Defence and Fire Guard duties out of working hours."

Such is the background of toil and "leisure" in the Britain which, in long agony of blood and sweat and tears, has been converted to a miraculously efficient war machine. Hinging upon this, the White Paper brings generous comment from America (New York Times), as reminder to those in the U.S. of short memory, that "the British were fighting Hitler, part of the time almost alone, for two years before the Japanese bombed us into the war."

OF the 13 million houses in the United Kingdom when war broke out, 4,500,000 have been damaged by enemy action. Of these, 202,000 have been totally destroyed or smashed beyond possibility of repair. Bombed out, blacked out, taxed to the extreme limit, "the people who performed these prodigies of labour," comments Mr. Brendan Bracken, Minister of Information, "were fed on a monotonous ration and a dull diet, and have had a constant worry about coupons for this and that."

The terror by night, and oft-times by day, the privations, and the miseries of separation, have fallen heavily upon our children: 7,250 have been killed by the enemy on our home soil; the total of wounded and maimed has yet to be revealed. This grim toll of flesh and blood totalled, to the end of August 1944, 57,298 civilians killed (including 23,757 women) and 78,818 injured and detained in hospital. In the Armed Forces of the U.K., from the outbreak of war to September 3, the killed numbered 176,081, the missing 38,275, the wounded 193,788, and prisoners amounted to 154,968. Our Merchant Seamen list on their roll of honour the names of 29,629 killed.

BY mid-1944 there were in our Armed Forces 4,500,000 men. In the auxiliary services, wholetime Civil Defence, or industry, there were over seven million women and girls. The aircraft industry alone absorbed two million workers—and up to June we had built 102,609 aeroplanes. In these five years we have produced more than 35,000 guns: heavy and light artillery for field and A.A. purposes. And, in addition, 3,729,921 machine- and sub-machine-guns, and 2,001,949 rifles. Tanks amounted to 25,116, and wheeled vehicles of all kinds 919,111. Our shipyards have turned out 5,744 naval vessels.



JERRICANS—NEW-STYLE PETROL TINS—are here seen in great numbers being refilled from petrol lorries at an advanced air base on the Continent. Millions of them, produced at top speed by British factories during the first half of 1944, helped in the winning of the Battle of France, as told in this page. *Photo, U.S. Official*

The severe drain on our man and woman power for war work and services dislocated home and other living conditions to an abnormal degree. The building trade, textile, clothing and other industries suffered a loss in workers equal to almost one-half of the pre-war total; in 1944 the number was 2,900,000 as against 5,798,000. Imports, because of the acute pressure on Allied shipping, sank to an all-time low level.

Even firewood became so rare as to be unobtainable: except in districts devastated by enemy action. Expenditure on boots and shoes was cut by a quarter, clothing by one-half, hardware (pots and pans generally) by two-thirds, furniture by three-quarters, bicycles and cars by nine-tenths. And the fighting and the working went on, increasing in volume. Our war expenditure has mounted to nearly £25,000,000,000. In direct taxation we paid in 1943 the sum of £1,781,000,000, in indirect taxation £1,249,000,000. In the same period government spending amounted to £5,782,000,000.

Equally surprising revelations, affording both friend and enemy more food for serious thought, are given in another White Paper (Mutual Aid, Second Report, from H.M. Stationery Office, 2d.), concerning Britain's reverse Lend-Lease to America and other Allies. "The total of Mutual Aid furnished by His Majesty's Government in the United Kingdom to their Allies," the Report says, "exceeds £1,000,000,000. All this has been given, without payment, in furtherance of the principle that the resources of the United Nations should be pooled for the common war effort."

Success of the Allied landing in France depended largely on the prefabricated harbours—one for British the other for U.S. use—which were designed and constructed in this country (see pages 430-434). Among other items handed over to the U.S. forces were two complete floating docks; pontoon units numbering 2,110; 200 cranes; 12 coasters and 30 lighters; 3 hospital carriers.

TRAINING requirements for U.S. forces in Britain gave rise to serious problems, but these were all surmounted—regardless of cost. "In one agricultural area about 3,000 civilians were removed, and eight villages evacuated in order to give space for training with live ammunition." Movement about this country of American troops in the six months ending June 30, 1944, involved 9,225 special trains and 650,000 wagons; hundreds of thousands of tons, in addition, were transported by road and canal. British ships carried 865,000 U.S. troops across the Atlantic; the Queen Mary (see page 486) and the Queen Elizabeth brought over 320,500.

In many cases our factories met the entire requirements of the U.S. forces, including sparking plugs for certain types of aircraft: 558,500 up to June 30, 1944, and a further 600,000 plugs had been shipped to the U.S. Other supplies comprised 2,104 aircraft (500 were gliders), with an additional 570 aircraft engines; 137,000 jettison fuel tanks to increase the range of fighter planes; 50,000 pieces of armour plate for aircraft; 29,000 aero tires and 22,000 aero tubes; and 7,087,802 jerricans (petrol containers) were delivered in the first 6 months of 1944.

Those jerricans, turned out by the million in British factories, played an immense part in winning the Battle of France. "Without them," declared President Roosevelt, "it would have been impossible for our armies to cut their way across France at that lightning pace, which exceeded the German blitz of 1940." The special point about these petrol tins is that they are oblong, enabling them to be packed in great numbers on a lorry or other vehicle, and they are known as "jerricans," because "Jerry" invented them. British production followed the capture of one of Rommel's petrol convoys by the 8th Army.

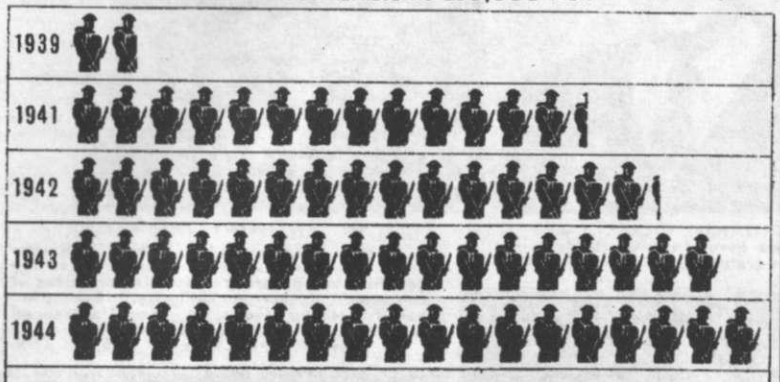
We supplied to U.S. forces food grown in the United Kingdom to the value of close on £8,000,000. To Russia we shipped material for the Soviet fighting forces, numerous items, in one year, including 1,042 tanks, 6,135 miles of cable, and two million metres of camouflage netting; naval supplies were represented by 195 guns of all calibres with 4,644,930 rounds of ammunition. To China, to European Allies, to Portugal and Turkey vast streams of arms, munitions, equipment or other aid flowed from our shores. As fitting conclusion to a severely condensed account of part of the Homeland's effort comes President Roosevelt's declaration that all this has made a "life and death difference in the fighting this year."

Colossal War-Efforts of the Homeland Revealed

Men of the United Kingdom under Arms

(In June of each year)

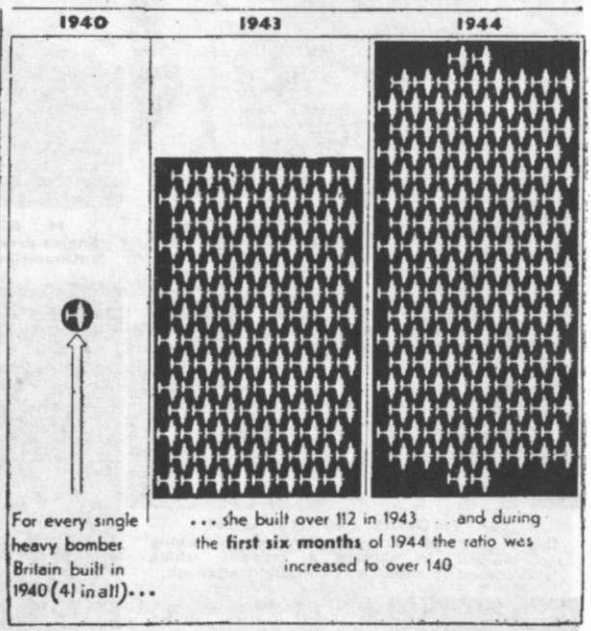
EACH SYMBOL REPRESENTS **250,000** MEN



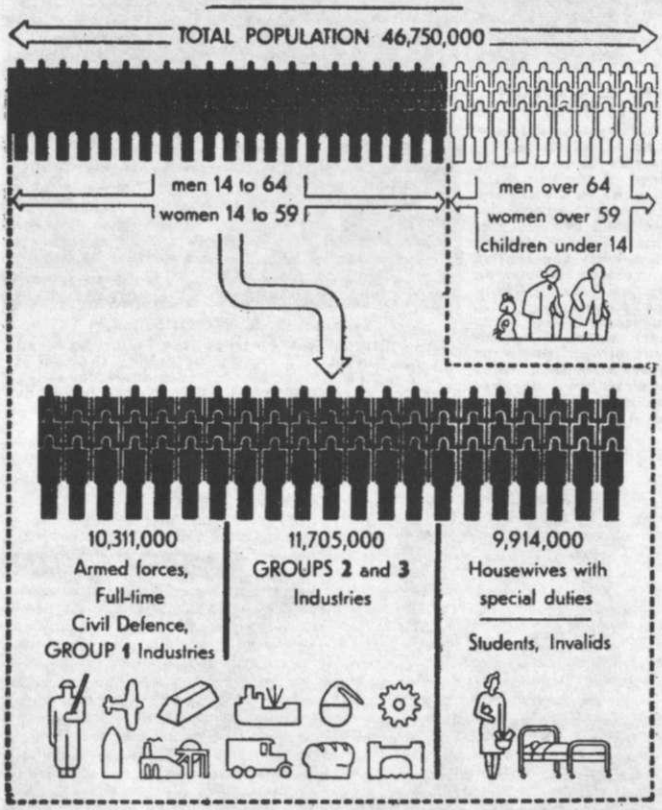
Including the number killed, missing, taken prisoner or released on medical and other grounds, the total during this war is over **5,500,000**

The striking development of Britain's warplane industry

ONE EXAMPLE **HEAVY BOMBER OUTPUT**


1940
1943
1944
For every single heavy bomber Britain built in 1940 (41 in all)...
...she built over 112 in 1943 ... and during the first six months of 1944 the ratio was increased to over 140

Britain mobilized with all her might



DISCLOSED FOR THE FIRST TIME, in a White Paper issued on November 28, 1944, are details of Britain's prodigious war achievements (see facing page). Here part of the story is told in pictorial form. In the diagram at bottom left, Group 1 industries include munitions and all warlike stores—engineering, aircraft, motors, shipbuilding and repairing, metal goods manufacture, chemicals, explosives, oils, etc. Group 2 industries embrace all basic industries and services, including agriculture, mining, government service, gas, water, transport, food, etc.; and Group 3 building, civil engineering, clothing, distributive trades, commerce and professional services.

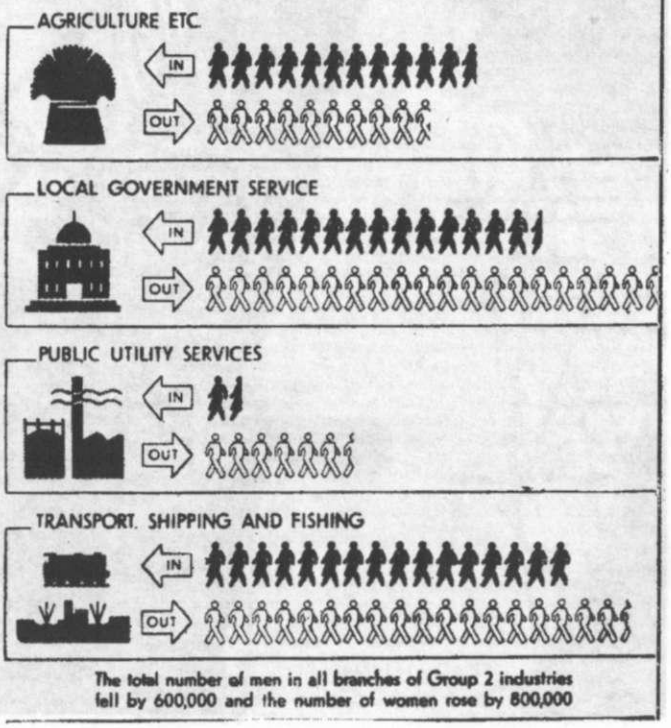
British Official Diagrams

The part played by women in Britain's war effort

REPLACING MEN

4 examples from Group 2 Industries

Each BLACK symbol represents **10,000** women added
Each WHITE symbol represents **10,000** men withdrawn



The total number of men in all branches of Group 2 industries fell by 600,000 and the number of women rose by 800,000

Home Front Civilians Honoured for Bravery

Mr. THOMAS KNIGHT, B.E.M.
This 37-year-old Ramsgate diver groped along the sea-bed to salvage a torpedo which threatened to explode at the slightest touch.

Mr. BENJAMIN GILBERT, G.C.
Engine-driver hero of the Cambridgeshire ammunition train explosion on June 2, 1944.

Mr. ANTHONY SMITH, G.C.
A Chelsea chimney-sweep, this C.D. Rescue Service worker was honoured for "outstanding gallantry and devotion to duty in conditions of the utmost danger and difficulty." Burrowing beneath blazing debris, he rescued a trapped casualty in the basement of a bomb-wrecked house which was about to collapse.

Dr. E. BOYTON, M.B.E.
This 61-year-old doctor (above), of Battersea, performed an amazing deed of heroism in a V-bomb raid when the staircases were demolished in a block of flats. Though fearful of heights she tended a casualty trapped on the 5th floor, by climbing up a swaying N.F.S. turntable ladder (as at left) and entering the crumbling premises over a broken window frame. She remained with the man until he was removed.

Sergeant B. E. WOODS, B.E.M.
An officer of the Metropolitan Police, he saved three buried raid victims by raising the roof of a bombed house on his shoulders, enabling rescue work to proceed. Bricks were falling at the time, and the roof later collapsed.

Dr. J. BEESTON, G.M.
This Willesden doctor gave a blood transfusion while gas escape threatened to overcome workers in a tunnel where a woman lay trapped, and thus saved her life.

Dr. H. SPARLING, M.B.E.
C.D. Casualty Officer of Croydon he was held by the heels while giving injections and binding fractures in a large house which had collapsed on top of people.

Photos, L.N.A., G.P.U., Topical, News Chronicle

Stand-Down Parade of Britain's Home Guard

IN LONDON ON SUNDAY, DECEMBER 3, 1944, over 7,000 Home Guards, drawn from all over Britain, marched past H.M. the King, who took the farewell salute (above), the Queen and the Princesses, at Stanhope Gate, Hyde Park. Three men from each unit in the Kingdom attended, together with some 3,500 from the London district, most of whom had enrolled when the Home Guard was formed, as the L.D.V. (Local Defence Volunteers), in May, 1940. See eye-witness story in page 538.

Photo Planet News

Chinese are Called on to Summon All Resources

"CHINA IS FACING the most critical situation of the war," disclosed a Chungking dispatch dated December 1, 1944. The Japanese were advancing rapidly and in very considerable strength towards the vital Burma Road base of Kweiyang, junction town of the highways leading to Kunming, terminal for air supplies, and heading towards Chungking (see map). Four days later Generalissimo Chiang Kai-shek called on the Chinese people to summon all their resources.

The developing threat to China's lifeline precipitated the flight of countless refugees all along her eastern front. Every available inch on this train (1) about to steam westwards from Liuchow was crammed. A forlorn Chinese mother and her two children (3) rested on the track, hoping for a lift. Suspected civilians were rounded up: a Chinese Army colonel is seen (2) interrogating one (with back to camera) accused of espionage. See also illus. p. 544.

Photos, Planet News, Paul Popper. Map by courtesy of News Chronicle

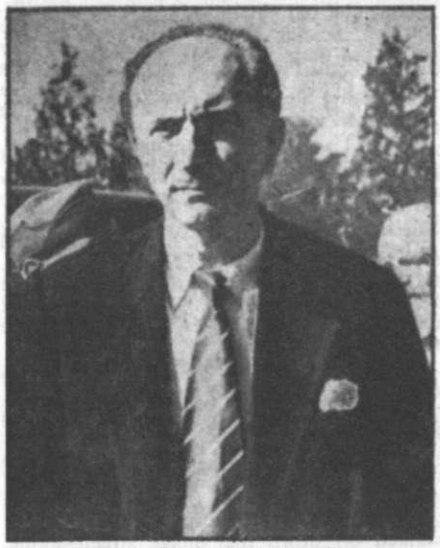
I WAS THERE! Eye Witness Stories of the War

Behind ELAS Lines in Dissension-Torn Athens

Political differences in Greece, partly submerged during the fight against the common enemy, flared into open fighting after Athens had been freed of the German yoke. On December 8, 1944, B.U.P. correspondent James Earl-Roper sent this dispatch from the Greek capital, where the insurgent ELAS (Greek partisans) were being dealt with by Greek Government and British troops. (See also illus. page 523).

WITH a group of American war correspondents (our armbands served as safe-conduct passes) we moved through ELAS "territory" for three hours. I saw well-armed men, well supplied with ammunition, manning German-built pillboxes and putting the finishing touches to air-raid shelter trenches and firing points. The ELAS soldiers were carrying a variety of rifles, all had bandoliers and seemed to have plenty of ammunition, including German "potato masher" hand grenades.

I saw one woman guerilla. She was about 23, and was proudly carrying a red-snapper concussion grenade of the Italian type. The rattle of small arms fire sounded almost continuously, except when we reached points deep in the ELAS positions in the rebel-held part of Athens. Sitting at a street corner on a camp stool with stretchers near him was a Greek doctor, waiting for casualties.



M. GEORGE PAPANDREOU, the Greek Prime Minister, against whose Government the ELAS (Left Wing) troops broke into insurrection on December 3, 1944. A glimpse of the Athens scene five days later is given in this page. *Photo, British Official*

House windows were shuttered, but there were people living in those houses. Sometimes the shutters flew back suddenly and suspicious faces peered out and down at us. Suspicion thawed when the Greeks made out the armbands of the war correspondents.

Most of the ordinary civilians I saw looked very tired. Many of them seemed hungry and some seemed nervous. It was easy getting into the ELAS lines. I walked out towards the ELAS strongholds, shook off a British soldier who warned me not to go farther, and then ran into an ELAS guerilla, who passed me back to another trooper, and so on.

Getting out again was not so easy. As we started to infiltrate back to the British lines, a volley of rifle bullets slammed suddenly down the boulevard. I made a dash for it, racing across the open street with the rifle bullets speeding my progress. I ran on until I reached the middle of the next street, when a pretty Greek girl flagged me down with a wave of the hand and a laugh.

Bullets were still flying around, and the position looked none too happy until a British armoured car rolled up to the scene with British soldiers on the look-out for trouble. Then a jeep came along and we got a lift back to central Athens.

IN AN ATHENS STREET, in December 1944, a British soldier stands rock-like, alone, while the tide of civil war, typified by banner-carrying political demonstrators, swirls around him. *Photo, British Official*

My Amazing Escape from an Exploding Bomb Dump

From dark hells of falling rocks and choking gas and violent explosions men miraculously escaped; others perished where they were working deep underground, when the great bomb dump near Burton-on-Trent blew up on November 27, 1944. Jack Gorton tells his extraordinary story, given here by arrangement with The Daily Herald.

WE work—my pals and I—separated by a solid door of cement seven feet deep from those thousands of tons of stored bombs. On Monday morning with my mate George Shepherd I walked into the galleries. A hole in the hillside is our way in. We go with wicker food baskets slung over our shoulder on pieces of string and it's a walk of five-and-twenty minutes to our job 160 ft. down.

There are miles of galleries. It's like an underground maze. George and I got on the job. We talked about the week-end football results and joked a bit. Then, round about eleven, it happened. We heard a thump, a terrible thump. It sent me flying into the rock face.

I got up and said to my mate, "What the hell is this?" But we were still alive, we could slap our thighs and feel that our bones were still unbroken. We decided to go into the main roadway to see if we could get to the boys—there were 21 of them—to see if we could get into the daylight and fresh air.

Charlie Gibbs, a loader, took a light in his hand and walked off. Soon he came back and said: "Boys, there's gas on the main roadway!" Charlie Gibbs faced us squarely and asked for volunteers to go into the main roadway to see if we could find our friends. We heard Charlie saying, "We must have some more help!"

We walked on and I found Willy Watson, a loco driver, lying in the main roadway. He was unconscious. They took him back. I walked on another 200 yards and smelt gas, like sniffing burnt sugar. We took Willy Watson through a relief door, a wooden door, because we knew that on the other side of it there was fresh air, and laid him down. We twisted his ears and worked his left arm around like a pump. We saw his eyes flicker and then we knew that Willy was still alive.

We went on for two other men who were on the same roadway, through two pockets of gas before we got to them. I saw George Smith crouched down, unconscious. And this is where I started to go under. A piece of rock fell on one of my hands. I suddenly realized that that piece of rock had never caused me any pain. Then I went under.

I don't remember anything more, but I

A DERBYSHIRE VILLAGE "JUST VANISHED" when a R.A.F. bomb-dump blew up near Burton-on-Trent on November 27, 1944, and 68 people were killed or missing. Huge cracks and craters appeared in the earth as seen here; houses, cottages and farm buildings in a village a few miles away collapsed like packs of cards, and people more than 50 miles away, in Northampton and Daventry, heard the explosion and felt the blast. A miraculous escape-story by a near-victim is related above. *Photo, The Daily Herald*

know now that my mates dragged me back to safety. Up on the surface a farmer, who is a C.D. worker, had refused to leave the mouth of the tunnel because he thought that some of us might get a message up to him. Somebody did shout. It is 90 feet deep there, but the farmer heard the cry.

They got a rope lowered down and, the boys tied it round me and I was hauled up. And they hauled up my wicker food basket with me. There it was, perched on my chest on the stretcher when I came round. I must be the luckiest man alive. I've heard people say that before, but now I know. I managed to get out of an explosion that has churned up our bit of countryside into a mudheap. Five of my mates down there are dead. Many more of them on the surface are dead.

COFFIN CORNER was the apt nickname for a dangerous position near Geilenkirchen (captured on November 19, 1944). Members of a British tank crew inspect the warning notice. There are other warnings our men must most carefully observe, as related below.

Photo, British Official

The British Soldier's Lot is Tough in Germany

Until quite recently the British soldier has been the liberator wherever he went, always greeted as a friend. Now that he has crossed the frontier of the Reich he has become an avenger—a role that doesn't suit him at all, for reasons given here by a military observer on the spot.

I've watched Thomas Atkins—the friendliest creature on God's earth—moving into billets in French farms, Belgian side-streets, Dutch villages. He's a stranger in those places for about twenty seconds; then suddenly he's at home, a friend of the family, of the street, of the village. He's chatting away in the accents of London, Wessex or the North Country, always with the grin that seems magically to make it all comprehensible to his new-found friends.

Out come the sweets and chocolate for the children and the cigarettes for the old man, and perhaps a tablet of soap for Ma—the first real soap she's seen for years. And though he represents an army which has stood up to the toughest fighting of the war, made spectacular advances and won great victories, he will never play the conquering hero. He never boasts and he never informs the French, Belgians or Dutch how much better everything is in England. Though he's popular with the girls, as with everybody else, you'll never see him rounding up the local glamour girls for joy rides. He's a family man. He misses his own home more than he could ever say and he loves to "get his feet under the table," to share the family life of whatever spot on the map he's sent to.

That's why invading Germany makes things tough for him. He knows the German soldier, and though he respects some of his enemy's soldierly qualities he has implacable hatred for the methods of the Nazi. He knows his job is to make the Nazi pay for the ruined streets of London, Plymouth and Hull, for the separation from loved ones he has suffered, and the far worse sufferings of the Gestapo's victims in occupied countries. But when he enters his first German village he finds only children who look much the same as English children, hard-working housewives and quiet old people. It's against all his warm-hearted, easy-going instincts to hold himself aloof, to discard the friendly grin and act the stern, relentless conqueror.

Is It Loot from Holland?

Yet those are his orders. All fraternization is absolutely forbidden. Forbidden because he's naturally unable to discriminate between the few Germans who all along have been Hitler's enemies and the many who cheered his victories, condoned the vile methods of the Gestapo, and now protest that they were always anti-Nazi. That quiet, respectable woman who looks rather like his own mother—why should he be forbidden to pass the time of day with her? She seems to bear no ill-will. Yes, but if he only knew she probably has a son in the S.S., maybe one of those who booby-trapped British wounded or shot Russian civilians for acts of peaceful resistance.

That big radiogram in her parlour is probably loot from Holland, and even her Sunday coat may well have been looted from the shop of a Frenchman who paid the penalty for refusing to collaborate. If the average British soldier were allowed to fraternize in a "harmless" way—give sweets to pale children and return the greetings of humble old folk—his genius for friendship would almost certainly betray him and play into the hands of his bitterest enemies.

So it's grim, this entry into Germany, for our men. When they're out of the line and the day's duty is done, they can no longer look forward to evenings at a homely fireside, nursing the old cat, playing games with the children, tracing their travels since D-Day on an old map, while Ma darns their socks and the pretty daughter's smiles help just a little to ease the ever-present ache of absence from loved ones.

When I asked the Commanding Officer of a battalion of a famous infantry regiment how his men were taking it, he said: "I have given my orders and they are being obeyed. The men have been told that we can't afford to be friendly with any of the Germans here. Except for the bitter few, they seem to be ill at ease living here among people they must ignore. It will be better when they evacuate these villages."

A dispatch rider, plastered with German mud from head to foot, gave me his view. "Seems funny not to be able to answer the kids when they speak. Still, I s'pose it wouldn't do to treat many of the Jerries decently. They'd only think we were soft." And he parked the bike that had carried him all the way from the Normandy beaches and walked off down the village street—alone. He'd never been alone in France or Belgium or Holland. Always there'd been at least a couple of children hanging on his arms, a dog round his feet, and greetings from every doorway. But now he was alone—one of the newly arrived army of friendly souls in a friendless country.

MONTY IN GERMANY: Field-Marshal Sir Bernard Montgomery (left) paid his first visit to German territory in December 1944, and met men of the British 2nd Army who had occupied it just a short while before.

Photo, British Official

We Cheered the Home Guards' Last Parade

Great crowds lined London's bomb-scarred streets on the grey Sunday afternoon of December 3, 1944, to honour the farewell parade of Britain's Home Guard, who for over four years had held themselves ready to repel any invader. Grace Herbert of The Daily Express here gives her impression of marchers and spectators on this moving occasion. See illus. page 535.

They marched through Hyde Park, sere and leafless in the typical December weather, saluted the King, their Colonel-in-Chief, went off down Piccadilly to the Circus, up Regent Street, turned left along Oxford Street to Marble Arch, went by Tyburn Gate, then down through the Park again to the Ring Road to disperse, officially for ever . . . unless called on for some fateful emergency.

A spectator can stand only at one place along a route, see one aspect of a marching man's face, one set of expressions. I felt a strange, unusual wish to cry. Why? These were ordinary men, our grocers, bank managers, husbands, sons. 'Men we see every day.

But for this day they were uplifted into something different. They wore great coats and tin hats, some carried new rifles, others had last-war rifles. Some wore new boots which were hurting them; some were young—very young; some were old—though not too old. Men of 70 walked beside boys of 17. And they were comrades. It was the comradeship, not the militancy, of this procession which made me want to cry.

I stood near the dais where the King, the Queen and the two Princesses were to take the salute. The Royal Standard curled in a soft breeze. People crowded the roof tops of the Dorchester Hotel and the houses of Stanhope Gate just behind. Park Lane was still.

In the middle distance we heard a low cheering. Five grey horses of the Metropolitan Police came into view. Behind them bobbed the khaki tin hats of our voluntary army. Several of us stood on park seats so that we could see both them and the King and Queen, and the Princesses. The King

HOME GUARDS SWINGING DOWN PICCADILLY on December 3, 1944, had taken part in the special stand-down parade in London, described in the story commencing in facing page. H.M. the King broadcast an appreciation of their services, in which he described them as "mighty in courage and determination." See also illus. page 535. *Photo, New York Times Photos*

wore Field-Marshal's uniform; the Queen, a black fur coat, a black hat, and fox fur.

With them on the saluting dais were Sir James Grigg, War Secretary, in a plain black coat, and General Sir Harold Franklyn, Commander-in-Chief of the Home Forces. The Irish Guards band, stationed opposite the dais, played "Colonel Bogey." Princess Margaret whispered to Elizabeth. They strained forward past their mother and father to see the men advancing.

The King raised his hand to the salute as men of the London district marched past. Then came the anti-aircraft gunners; then the Eastern Command contingent. For 45 minutes they marched by, 29 contingents, 11 Home Guard bands. The crowd cheered and clapped. Nearly every person in that crowd was looking out for somebody they knew in the parade.

It was an amazingly large, good-natured crowd. But it did not cheer loud and long. One woman said: "We are still at war!" Which seemed to sum up the general feeling. There were many Home Guards in the crowd, both in and out of uniform. And they made remarks like these:

"Well, it shows the war's nearing its end." "Our job's done." "We won't forget the friends we've made in a hurry." "Fancy every one of those 7,000 men wearing his own socks." "Now I remember when we only had sticks." "Now mum'll have me back on her hands." "Old Home Guards never die. . . ." The last line passed. The police closed in. It was over.

OUR DIARY OF THE WAR

DECEMBER 6, Wednesday *1,922nd day*

Western Front.—3rd Army troops entered outskirts of Sarreguemines. Floods caused by German breaching of dykes S.W. of Arnhem held up movement on 2nd Army front.

Air.—Leuna oil plant at Merseburg again attacked by U.S. bombers by day and R.A.F. at night. Railway yards at Bielefeld and Osnabruck also bombed.

Pacific.—U.S. warships repulsed Japanese air attack on Super-Fortress base in Marianas.

DECEMBER 7, Thursday *1,923rd day*

Western Front.—3rd Army troops penetrated Siegfried defences north-west of Saarlouis.

Russian Front.—Soviet troops cleared southern shore of Lake Balaton, Hungary, of the enemy.

Philippines.—Announced that U.S. troops had landed on west coast of Leyte, three miles from Ormoc.

Far East.—Super-Fortresses attacked aircraft plant at Mukden and other targets in Manchuria.

Pacific.—U.S. warships and bombers attacked Japanese base at Iwojima, Volcano Islands.

DECEMBER 8, Friday *1,924th day*

Western Front.—Fort Driant, west of Metz, fell to U.S. troops.

Air.—Marshalling yard and oil plant in Duisburg area attacked in daylight by R.A.F. Lancasters.

China.—Tushan, south-east of Kwei-yang, recaptured by Chinese troops.

DECEMBER 9, Saturday *1,925th day*

Western Front.—3rd Army troops made two more crossings of the Saar and threw back counter-attack at Saarlouis.

Air.—Railway yards and airfield at Stuttgart bombed by U.S. 8th Air Force.

Russian Front.—Red Army troops reached Danube north of Budapest and orced new crossing to the south.

DECEMBER 10, Sunday *1,926th day*

Air.—Railway centres at Coblenz and Bingen attacked by U.S. bombers. Spitfire bombers again attacked V2 sites.

Sea.—Announced that new British fleet would operate in Pacific theatre, under command of Admiral Sir Bruce Fraser.

Burma.—Troops of British 36th Division entered Naba, Indaw and Katha.

Philippines.—Japanese base of Ormoc, on west coast of Leyte, captured.

General.—Soviet-French Treaty of Alliance signed by Gen. de Gaulle in Moscow.

DECEMBER 11, Monday *1,927th day*

Western Front.—U.S. 7th Army troops entered communications centre of Haguenau, on road to Palatinate.

Air.—More than 2,000 U.S. heavy bombers from Britain and Italy attacked railway yards at Frankfurt, Giessen and Hanau and oil plant and ordnance depots in Vienna region.

Russian Front.—Soviet troops closed in on Budapest from north, east and south.

Greece.—Fighting continued in Athens between British supporting Papandreou Govt. and reinforced ELAS. troops.

DECEMBER 12, Tuesday *1,928th day*

Air.—More than 1,250 U.S. bombers and 900 fighters attacked Leuna oil plant and railway yards at Hanau, Darmstadt and Aschaffenburg. R.A.F. bombed Witten in the Ruhr by day, and at night made a heavy attack on Essen.

Mediterranean.—Allied bombers from Italy attacked Blechhammer oil plant in Silesia.

Greece.—Field-Marshal Alexander and Mr. Harold Macmillan visited Athens.

DECEMBER 13, Wednesday *1,929th day*

Western Front.—Last Metz fort, Jeanne d'Arc, fell to Allied troops.

Burma.—Announced that 14th Army had built Bailey Bridge across the Chindwin near Kalewa.

Far East.—War production centre of Nagoya, Japan, bombed by Super-Fortresses.

DECEMBER 14, Thursday *1,930th day*

Western Front.—Germans launched counter-attack at southern end of front, around Colmar.

Greece.—Announced that reinforcements and supplies had been flown from Italy to British troops in Athens.

Burma.—Super-Fortresses from India attacked Bangkok and Rangoon.

DECEMBER 15, Friday *1,931st day*

Western Front.—Troops of 7th Army crossed German border from Alsace.

Air.—R.A.F. bombed E-boat and R-boat pens at Dutch port of Ijmuiden, and at night attacked chemical works at Ludwigshafen. U.S. bombers attacked railway targets at Hanover and Kassel.

Burma.—Bhamo, last big Japanese stronghold in northern Burma, captured by Chinese forces.

Philippines.—Announced that U.S. troops had landed on island of Mindoro, south of Manila.

General.—Mr. Churchill stated that Britain supported Russian plan of Curzon Line as Poland's eastern frontier, with East Prussia as compensation in the west.

DECEMBER 16, Saturday *1,932nd day*

Western Front.—Germans launched series of large-scale counter-attacks against 1st Army front in the Ardennes.

Air.—R.A.F. Lancasters bombed railway centre of Siegen, east of Cologne. U.S. bombers attacked Stuttgart.

Italy.—Troops of 8th Army captured Faenza, on road to Bologna.

Mediterranean.—Allied bombers from Italy attacked oil plant at Brux, in Czechoslovakia.

Burma.—Chinese and U.S. troops of Mars Task Force entered Tonkwa, 120 air miles from Mandalay.

DECEMBER 17, Sunday *1,933rd day*

Western Front.—Germans forced four penetrations of U.S. line.

Mediterranean.—Allied bombers from Italy attacked oil targets at Blechhammer and Odertal and railway yards at Salzburg.

DECEMBER 18, Monday *1,934th day*

Air.—Cologne, Coblenz and Mainz attacked by U.S. bombers. R.A.F. bombed German warships at Gdynia.

Russian Front.—Soviet troops from Hungary crossed Czechoslovak border.

Far East.—Super-Fortresses bombed Nagoya and Hankow.

DECEMBER 19, Tuesday *1,935th day*

Air.—Allied heavy bombers attacked road and rail communications behind German counter-attack in the West.

Balkans.—Montenegrin town of Podgorica captured by Yugoslavs.

Far East.—China-based Super Fortresses attacked Omura, Japan and Shanghai and Nanking.

★ *Flash-backs* ★

1939

December 13. *Battle of River Plate between Graf Spee and Exeter, Ajax and Achilles.*

1940

December 9. *Wavell's offensive opened against Italians in Western Desert of Egypt.*

December 17. *Sollum on Egyptian frontier captured by Wavell.*

1941

December 8. *Imperial forces raised 8-months' siege of Tobruk.*

December 9. *Japanese landed on island of Luzon, Philippines.*

December 10. *Prince of Wales and Repulse sunk off Malaya.*

December 11. *Germany and Italy declared war on U.S.A.*

1942

December 16. *Red Army opened offensive in Middle Don area.*

1943

December 12. *Rommel appointed C.-in-C. of "European Fortress."*

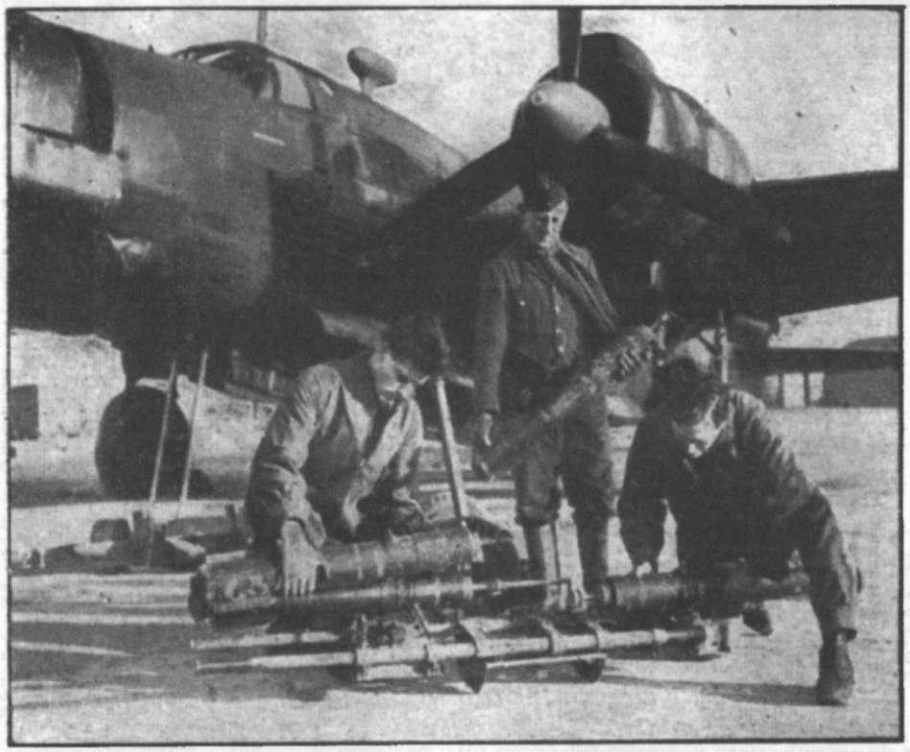
December 15. *U.S. troops landed on coast of New Britain.*

THE WAR IN THE AIR

by **Capt. Norman Macmillan, M.C., A.F.C.**

THE V2 rocket-bomb which has been used by the Germans to "shell" southern England can be launched from a simpler site than is needed for the flying bomb. The latter requires a launching ramp or a mother-aircraft (see illus. p. 469). To fire V1s in rapid succession from the surface demands the advance preparation of ferro-concrete engineering works of considerable size; it was the large V1 launching sites that Bomber Command concentrated on during their 1944 attacks against the Pas de Calais area of France, often using 12,000-lb. armour-piercing bombs to shock-damage the massive concrete works of the enemy. Remembering that these large bombs were frequently employed in those counter-attacks against the V2 erection and launching sites in Holland, firing cannon shells into buildings attached to the sites and setting alight surrounding woods with bombs and incendiary cannon shells.

ALTHOUGH these counter-measures must reduce the frequency of V2 discharges, as must Bomber Command's attacks against factories believed to be engaged on the manufacture of the weapon, and the 2nd Tactical Air Force attacks on railway rolling stock used to transport the V2s from factories or main stores to launching zones, it is improbable that air action can eliminate the V2 weapon. The only way to do that is to drive the enemy back from all surrounding territory within an area whence his flying-bombs and rocket-bombs cannot reach a target outside the Reich. But by the time that is done Germany will have been militarily defeated, for the Allies will have met from the east and the west, simply because Germany is approximately 400 miles across, and 200 miles is the present range of the V2. Thus Germany can continue to fire V2 rockets of the present pattern right up to the moment of her capitulation, knowing that they will explode in the territory or cities of other nations.



SHIPFINDER FORCE WELLINGTON is loaded up with drip flares by a R.A.F. ground crew of Coastal Command. Of immense candle-power, these flares, dropped by Wellington bombers, silhouette the night targets for Wellington or Beaufighter striking forces which in powerful formations attack what survives of enemy shipping in the North Sea. *Photo, Planet News*

makes it easier to realize how it came about that Bomber Command expended over 100,000 tons of bombs against the V1 sites within a few months.

BUT the V2 is a different proposition (see facing page). The quality of the target it offers is not so suited to the shock assault of heavy bombers. Indeed, it has been officially stated that the V2 can be fired from an ordinary level road with a good surface and stout ballast. The rocket weighs about 12 tons, and the starting thrust is about 26 tons, which enables it to take off from a standing start; any level platform capable of supporting a standing weight of 12 tons and the momentary thrust of 26 tons will do for the discharge of the weapon. Around the launching site, however, must be arranged quarters for the V2 handling crews, stores and workshops, but these small buildings do not offer a target of importance to Bomber Command. Hence Fighter Command has been the mainspring of the V2 counter-offensive Spitfire fighter-bombers, well able to make the accurate pin-point attacks necessitated by the dispersed and small units of the target, have been employed to attack V2

The problems which have been introduced into this war by the introduction of new weapons, such as these, the 12.000-lb. A.P. bomb, radar, teleradar, the aircraft cannon-gun up to 75 millimetres, and the aircraft rocket shell with a 55 to 60-lb. explosive head, are bad enough, but their subsequent application in the post-war epoch will be even worse. Following the lines which this war has opened up, scientific research during the post-war period might place in the hands of some one nation the power to win a war against all other nations with a speed equal to the rapidity with which Germany knocked out Holland, Belgium and France in 1940. Unless the Allies can prevent Germany and Japan from prosecuting such research in secret, and also succeed in arranging reciprocity in research among themselves, the future world will be an uneasy place for all mankind to live in. Apart from any other factor, imagine the problems attached to the provision of practice firing ranges in peacetime in most countries for testing weapons with a range of upwards of 200 miles!

Meanwhile, passing over all Germany, Allied bombers in great and growing fleets continue to attack enemy supply lines by railway, canal, road and sea. On December 1, 1944, the enemy admitted that he had been forced to move his anti-aircraft batteries back from the Western fighting zone (where they were employed against both aircraft and tanks) to guard against air attacks on his vital supply points within his defensive belt. The railway system of the Ruhr, the canal system linking the Ruhr with Berlin and the North Sea and Baltic, the oil plants near Leipzig and in Austria have all been heavily bombed, as have towns situated in the zone ahead of the Allied armies through which enemy supplies for his fighting lines must pass.

HEAVY Bombers' Normandy Tasks are Repeated Inside Germany

Among recent town targets have been Osnabruck, Munster, Dortmund, Essen, Bochum, Holde, Hagen, Mulheim—Ruhr, Oberhausen, Hamborn, Barmen, Düsseldorf, Mulheim-Cologne, Bonn, Coblenz; within this area the heavy bombers are repeating the task which they carried out so effectively over and behind the Normandy battlefield, but here, within Germany, it may take longer to gain results, because the surface conditions are so different, and the enemy is defending his own land and buildings.

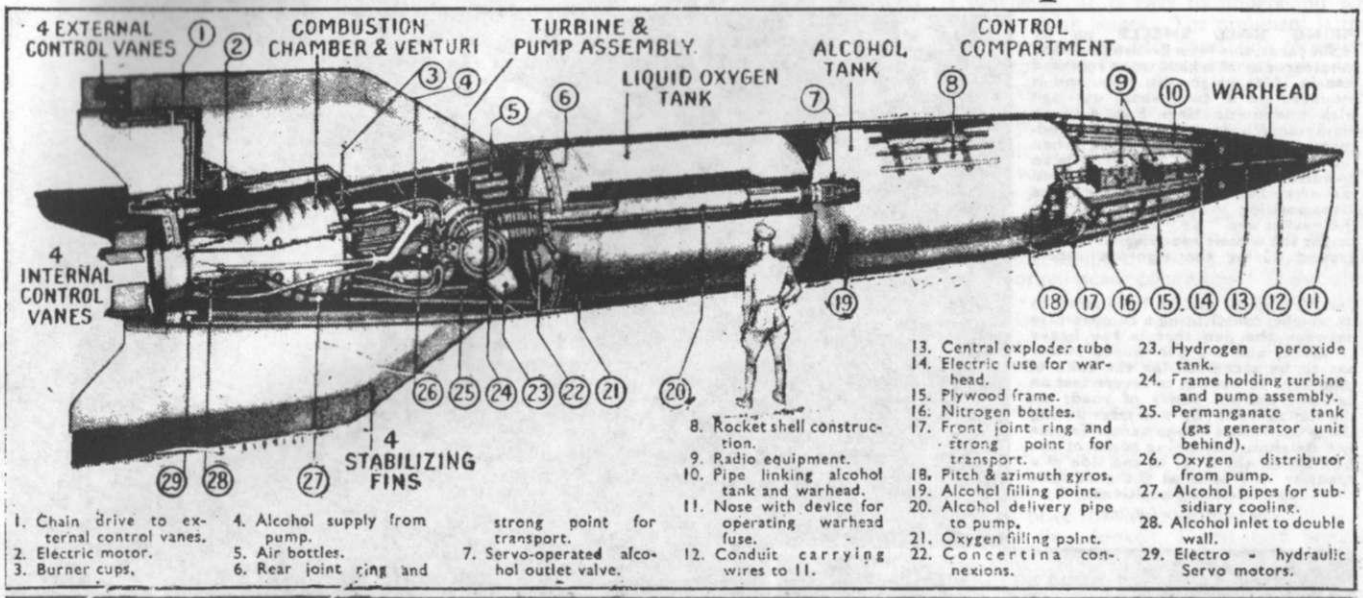
In China the position remains critical following the Japanese drive on Kweiyang in Kweichow province, thereby threatening to cut the Burma Road at Kweiyang at the moment that the United Nations troops had cleared it far to the west in the Tengueh-Lungling-Bhamo area. General Chennault's U.S. Army 14th Air Force continued to attack the Japanese columns, and a China-based Liberator was reported to have sunk an enemy ship about 20 miles off Hong Kong. But American aircraft have been forced out of Kwangsi province; tactical aircraft were withdrawn into Yunnan province, while the Super-Fortresses of the 20th Bomber Command were recalled to India (see map in p. 536).

LATEST news from the zone is that Chinese troops, counter-attacking, have driven back northward-pushing enemy columns in Kweichow province almost to the Kwangsi border. The outcome of this most critical of all the battles of China will go far to determine the duration of the war against Japan. If the Burma Road is cut in China by the Japanese, the carriage of supplies by air over the Himalayan hump to bypass the area held by the enemy in the west will be useless, and the fate of the pipeline now under construction to carry oil into China (see illus. p. 544) will become problematical.

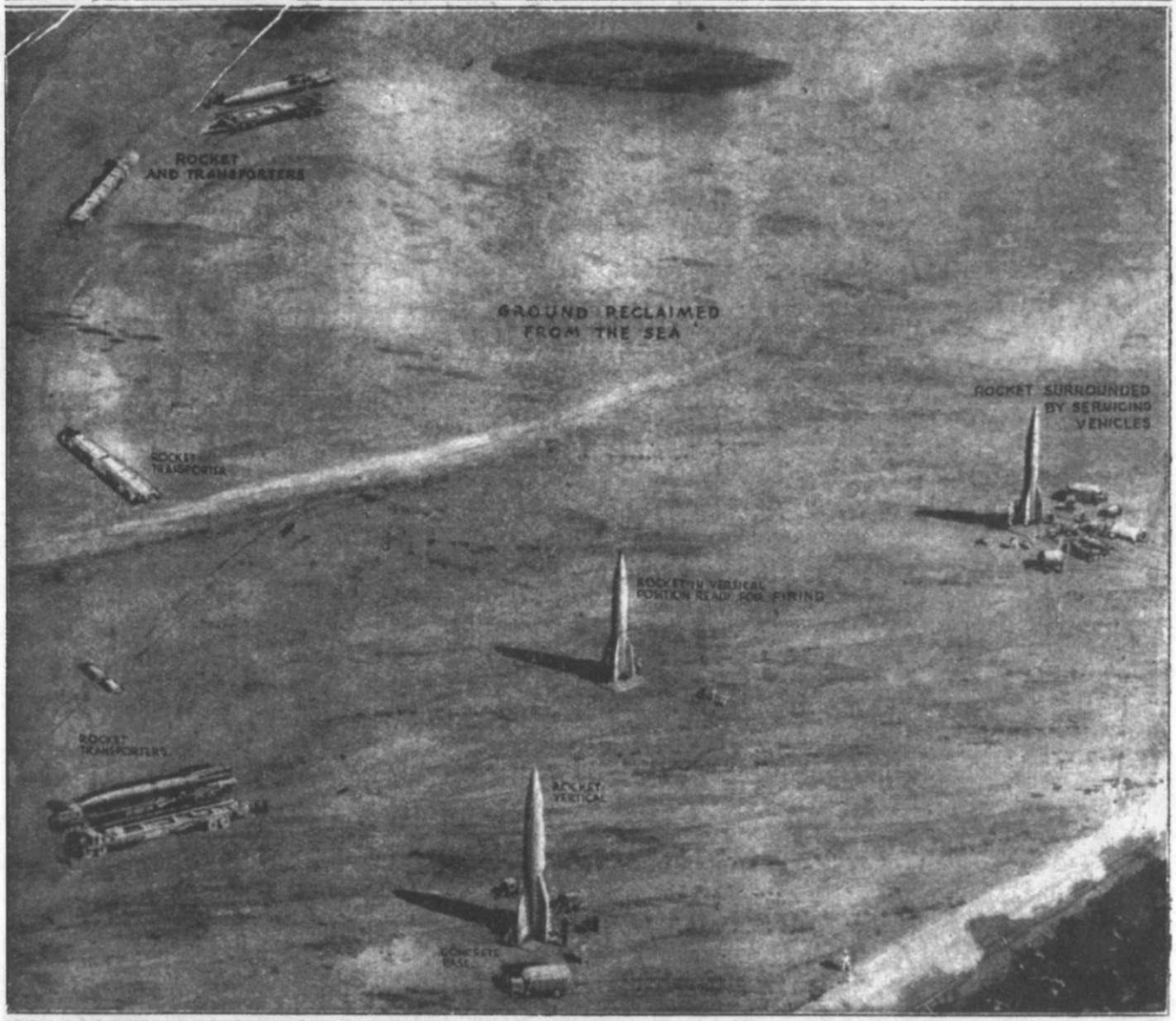
Meanwhile, Super-Fortresses have again bombed the enemy home base zone from the Marianas islands. Targets in Korea and Manchuria (important iron and steel areas) were attacked. On December 13, 100 Super-Fortresses bombed Nagoya, a centre of silk and cotton, textile and pottery manufacture. Japanese attempts to land reinforcements on Leyte were defeated eight times by air attack, sometimes aided by surface, sea or land artillery action, and U.S. forces captured the port of Ormoc before mid-December.

R.A.F. leading night fighter aircrew in defence of Britain—Wing Commander John G. Topham, of London, and his observer, Flight. Lieut. H. W. Berridge, of Sutton—have destroyed 14 night raiders while flying on operational tours during four years.

V2 Holds No Secrets from Our Experts Now



1. Chain drive to external control vanes.
2. Electric motor.
3. Burner cups.
4. Alcohol supply from pump.
5. Air bottles.
6. Rear joint ring and strong point for transport.
7. Servo-operated alcohol outlet valve.
8. Rocket shell construction.
9. Radio equipment.
10. Pipe linking alcohol tank and warhead.
11. Nose with device for operating warhead fuse.
12. Conduit carrying wires to 11.
13. Central exploder tube
14. Electric fuse for warhead.
15. Plywood frame.
16. Nitrogen bottles.
17. Front joint ring and strong point for transport.
18. Pitch & azimuth gyros.
19. Alcohol filling point.
20. Alcohol delivery pipe to pump.
21. Oxygen filling point.
22. Concertina connexions.
23. Hydrogen peroxide tank.
24. Frame holding turbine and pump assembly.
25. Permanganate tank (gas generator unit behind).
26. Oxygen distributor from pump.
27. Alcohol pipes for subsidiary cooling.
28. Alcohol inlet to double wall.
29. Electro - hydraulic Servo motors.



FROM A R.A.F. RECONNAISSANCE PHOTOGRAPH taken when experimental work with V2 rocket bombs at the German research station of Peeßemunde (see illus. page 510) was in progress, the artist secured data for the reconstruction drawing above. Three rockets are seen in their vertical launching positions, one surrounded by special servicing vehicles. Dotted about are the transporters which carry the rockets from concealed storage galleries to the firing site, and there hoist them into a vertical position by means of rams. The V2, now known to be 46 ft. long and 5½ ft. in diameter, stands on its fins on a camouflaged concrete platform, ready for the launching from a well-protected firing-house situated at a safe distance. See also facing page, and illus. pages 468 and 508. (It should be noted that the word "Perspex" used in connexion with V1 in page 469 is the proprietary trade mark for the particular material made by I.C.I. Ltd., and the enemy therefore has no access to supplies.)

British Official and G. H. Davis (by courtesy of The Illustrated London News)

Britain's 7·2 Howitzer is Now in Action Overseas

FIRING 200-lb. SHELLS up to 16,000 yards, this New British howitzer (photographs of which were released late in 1944) weighs ten tons, and is mounted on a twin-wheel carriage with pneumatic tires 5 ft. 6 in. in diameter (2). It is fitted with hand-controlled brakes; but often when the howitzer is fired the recoil is so powerful that the weapon runs up on the steel ramps placed behind the firing position, in spite of the fact that the brakes are "on" (1). Note the height the wheels have risen from the ground during the vigorous recoil.

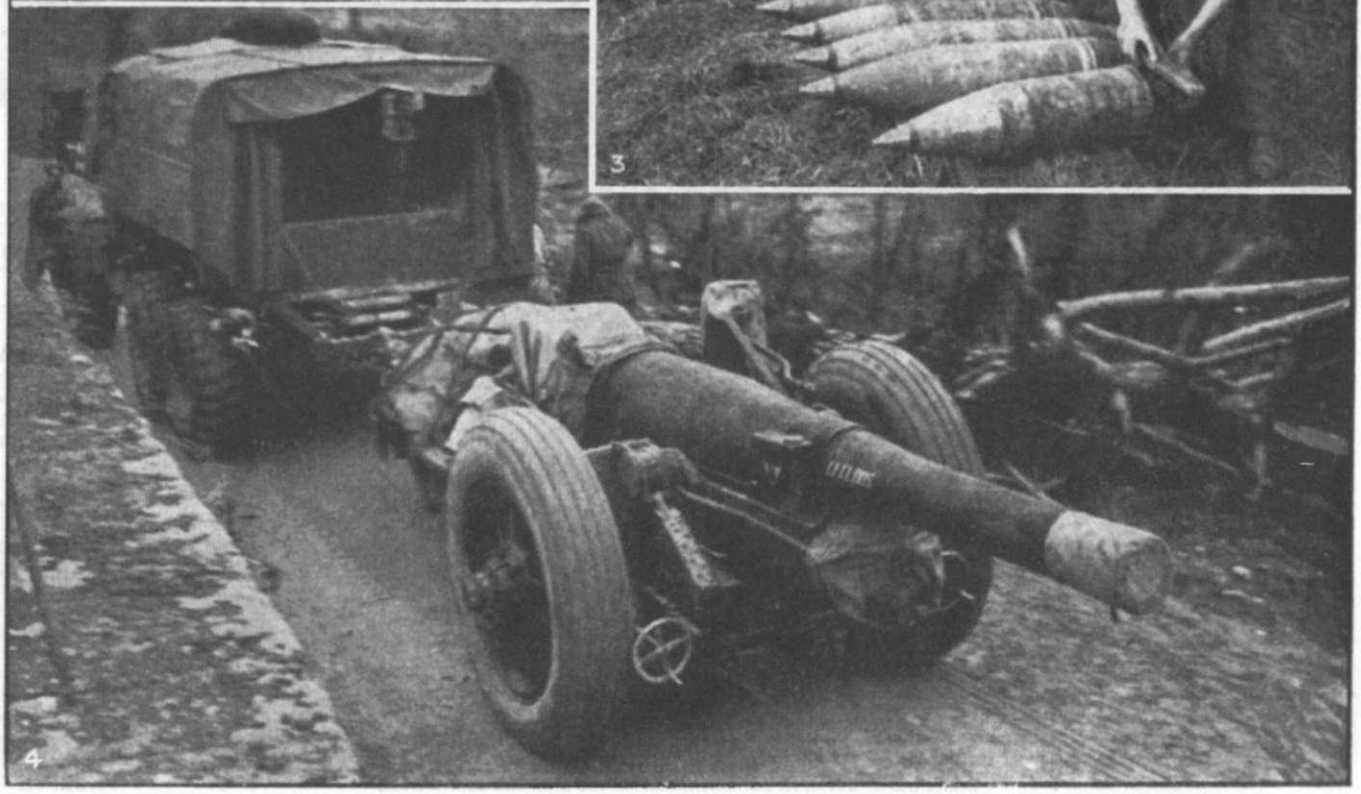
The 7·2 is quite mobile in relation to its weight, constituting a compromise between the gun that is too heavy to move, and the gun whose power has to be sacrificed for the sake of mobility. It was put to severe test on narrow, hairpin bends of roads on the Italian front (4), and later during the great Allied sweep across France and Belgium. Cleaning some of the 7.2's 200-lb. shells (3) at the side of a roadway in France as the guns take up their firing positions.

Photos, British Official

1

2

3


4

Editor's Postscript

By the time these lines are read I hope the deplorable events which are taking place in Athens while this is being written will have become a thing of the past. But I think we must be prepared for many more clashes such as have happened already in Greece, in Italy, in Belgium, among the Poles and the Yugoslavs. What puzzles me is that no one so far as I know has publicly pointed out the inner meaning of these happenings. It is a long time now since a friend of mine, with wide experience as a newspaper correspondent and an almost uncanny knowledge of what other people are thinking, told me he thought the Resistance Movements in the occupied countries would have little use for the official Governments which had been set up in London (though the Greek was in Cairo), and that few of the ruling men of pre-war days would be likely to get back into their old jobs. Those who had borne the burden and heat of the day, my friend predicted, would resent having thrust on them persons who had been living in comfort and comparative safety. None the less, I am sure that without these recognized "national" governments which London has sheltered, the task of the guerillas in some of the captured countries would have been vastly more difficult if not entirely hopeless.

Since I wrote in this page about the necessity of inducing large numbers of tourists to visit Britain other papers have been full of the subject. All sorts of suggestions are being made for the improvement of our hotels and guest-houses; all manner of criticisms are being passed on their shortcomings. Especially in the food line. But the idea that we ought to try to give visitors the kind of food they are accustomed to at home strikes me as being wrong altogether. In the first place, we could not do it. We try imitating French dishes, and the result is almost always deplorable. In the second place, people from other countries like a change of meals as well as changes of air and scenery. Often have I heard foreigners praise warmly the merits of real British cooking. I remember once in a train from Marseilles to Paris talking to a Frenchman who had paid us a visit not long before. He spoke with tender recollection of "your English steak pie," "your English roast shoulder of mutton," "your English apple tart with cream," "your Scottish soups—how do you call them?—yes, I have it, barley broth and cockieleekie—very strange name!" Half the pleasure of his holiday, he assured me, had been due to the meals he had at hotels where they had the sense to serve genuine British dishes prepared with appreciative taste, instead of serving tinned soup, and bad copies of foreign dishes, with tinned pineapple and watery milk pudding to follow. There are not many such hotels, but they can be multiplied, and must be if we want people from overseas to come and spend money here.

It is not wise to complain every time an American film is produced which seems to claim too much credit for our Allies. Such little annoyances are better passed over. But I must say I am in hearty agreement with critics who have condemned March of Time's picture of D-Day, called Strategy of Liberation. It seems that it gives the impression of an operation in which only Americans took part; and the climax comes when the manufacture and placing in position of the prefabricated harbour which enabled the invasion of the Continent to be carried out are represented as being the work of American engineers. Now that is really too much to bear without protest. I do not suppose the March of Time films, which are as a rule so good, last long; perhaps this one has already ceased to be shown. But in any future case of the kind the exhibitors ought to stand together and decline to show it. The story of these British prefabricated harbours was told in pages 430-434.

I am afraid that variations on the Enoch Arden theme are very numerous just now, as they were at the end of the First Great War. Tennyson made the story of the sailor who came back after long absence to find his wife living with another man and decided to go away and not disturb them, familiar to all who read poetry. It is not very good poetry. The last line is a ludicrous example of bathos. After paying tribute to "the strong heroic soul" who passed away without revealing himself, the Laureate announced that the little port where he died

Had seldom seen a costlier funeral.

But the appeal of the story is strong enough to triumph over the mediocre verse. It is one of those situations which stir the feelings even of the unimaginative. When they are encountered in real life, they do so all the more deeply. Here is one example. I went into an estate agent's office, and a small-sized soldier looking terribly disconsolate, passed me on his way out. The young woman at the counter had tears in her eyes. She had been receiving the rent for a little house from the soldier's wife. A few weeks before it had stopped. The soldier had come home on leave from Italy and found the place shut up. Where his wife was he had no idea, though he had been told by neighbours about another man. He could not even get into the house. What a home-coming!

A young friend of mine, a recently qualified engineer, who passed with honours, has gone into one of the great aircraft-making firms. I was surprised when I heard he was getting six pounds a week to start with. He is nineteen. It is easy to understand why firms pay high wages. The argument is that they may just as well hand out money to their promising young men and so secure their loyalty (if that is the right word!) as pay it over to the Treasury in the shape of Excess Profits Tax. But I wonder if it is quite fair to the young men? Starting them on that scale will make them not only expect to keep it, but to soar far above it. This boy has been told to look forward to a rise in a few months' time. Can he and his like reasonably count on being paid as highly under normal peace conditions? If not, they are likely to complain of having been led up the garden, I fancy. Another thing the boy says is that he finds there is very little to do. That seems more surprising still.

LIEUT.-GEN. FREDERICK BROWNING, C.B., D.S.O., who led the ever-memorable Arnhem-Nijmegen airborne operations in September 1944, received the Order of the Bath at a special investiture in London on December 6 (see page 513). He was appointed to succeed General Sir Henry Pownall as Chief of Staff to Lord Louis Mountbatten at S.E.A.C. Headquarters on November 28.

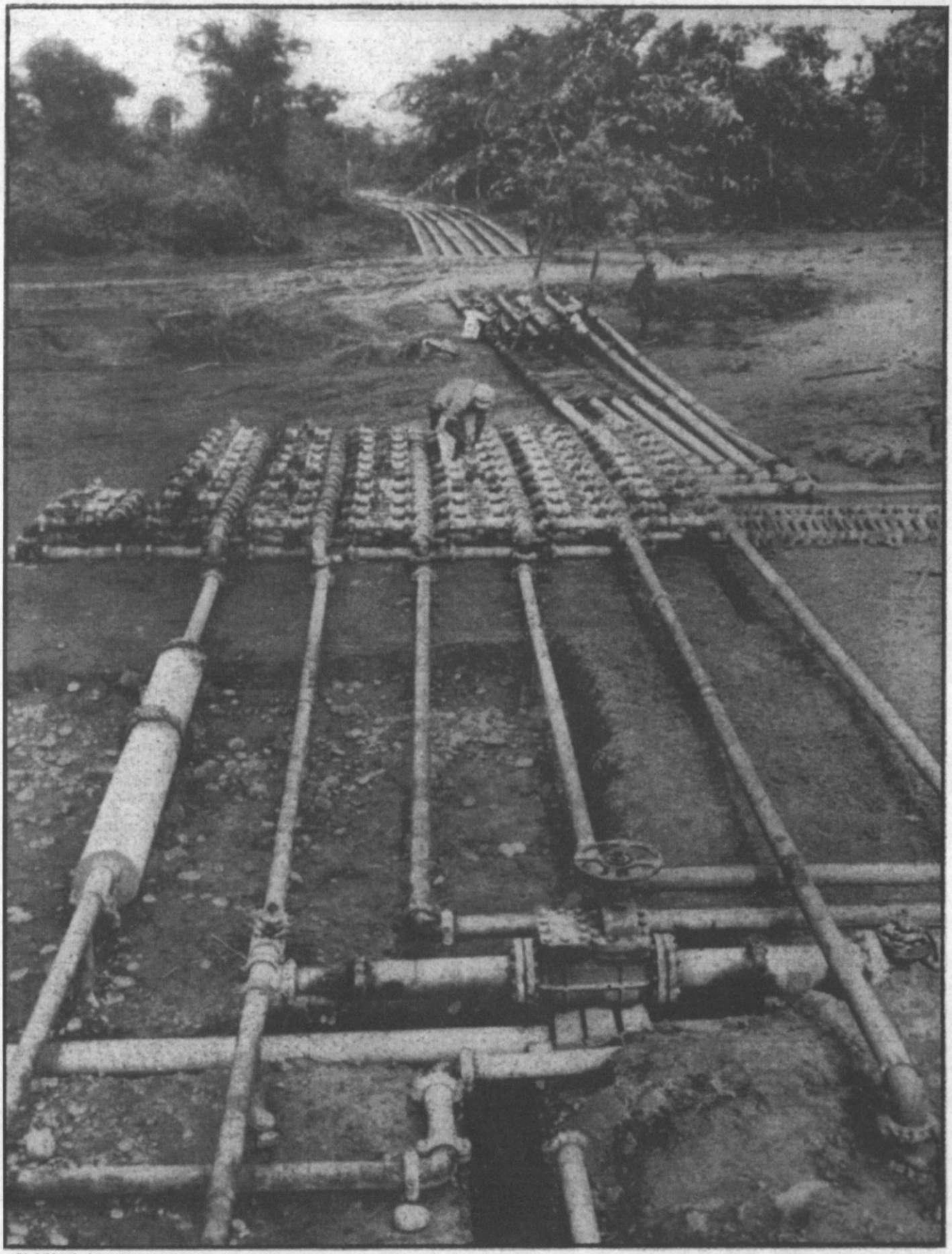
Photo, Associated Press

In a little suburban house the other day I saw a bowl of magnificent chrysanthemums. I knew they must have cost at least three or four shillings a bloom. I knew the occupants of the house could not afford to pay that price for flowers. When I said how beautiful they looked, I was told proudly that they were a present from one of the sons of the house who is with his regiment in Italy. "They just came one morning, with a card to say who they were from, and we *have* enjoyed them!" The way this is made possible has been worked out by Naafi in the various fighting areas and by the Women's Voluntary Service at home. The men at the front give their orders, and their friends receive the flowers with very little delay. I hear that the number of orders placed is approaching ten thousand and that more men are taking advantage of the scheme every month. Their gifts range from ten shillings-worth of any flowers the florists have in stock to special bunches of a named flower, which cost between two and three pounds. This is a happy development of the American "Say it with Flowers" idea.

Here is a case in which a war-worker lives resolutely in the present. An A.T.S. sergeant, who is sixty-nine, is in charge of 28 young women privates in a hostel. She enjoys it thoroughly and keeps them in excellent order, winning their affection as well as their respect. She believes she will not be able to secure another job of the kind when she has to give up this one. Of course, there is really no reason why, if she remains fit and energetic as she is now she should not be given employment such as she would like. But so many of us are still inclined to be hide-bound in this matter of age. Not so very long ago men and women in the sixties did feel their years. After seventy they acquiesced in being laid on the shelf. Today we have changed all that. People do not grow old anything like as soon as they used to in the 19th century. Was Shaw's Back to Methusalah a sound prediction? It does seem in some ways to be coming true.

When it was announced that women's shoes were to be made with wooden soles, most people imagined that this would make them cheaper than shoes with leather soles. But a friend of mine tells me she bought for fifty-five shillings, a pair supposed to have leather ones and found they began to wear out before she had had them on more than once. The leather was so unresistant that small stones in the roadway made marks on it. So she thought she would try wooden soles and perhaps give rather less for them. To her astonishment they cost her seventy-seven shillings. It is difficult to see the justification for that. I have more than once bought *sabots* in France to wear in the garden and they were very cheap indeed. I found them most useful, quite comfortable to the feet, and a protection against wet grass or damp soil. I have often wondered why we never adopted them here.

Oil from India to be Pipelined to China



CLOSELY GUARDED SECRET OF THE BURMA CAMPAIGN was disclosed on November 19, 1944, with the news that a gigantic oil pipeline, conveying thousands of tons monthly, runs from India to Burma and will eventually take precious fuel to China. An amazing triumph for Allied engineers, the pipeline rises from sea level near Calcutta, 4,000 feet up through Assam and North Burma, and is now crossing high ranges separating Burma from China. Above, valve installations are being checked as the task of pipe-laying proceeds. *Photo, New York Times Photos*

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